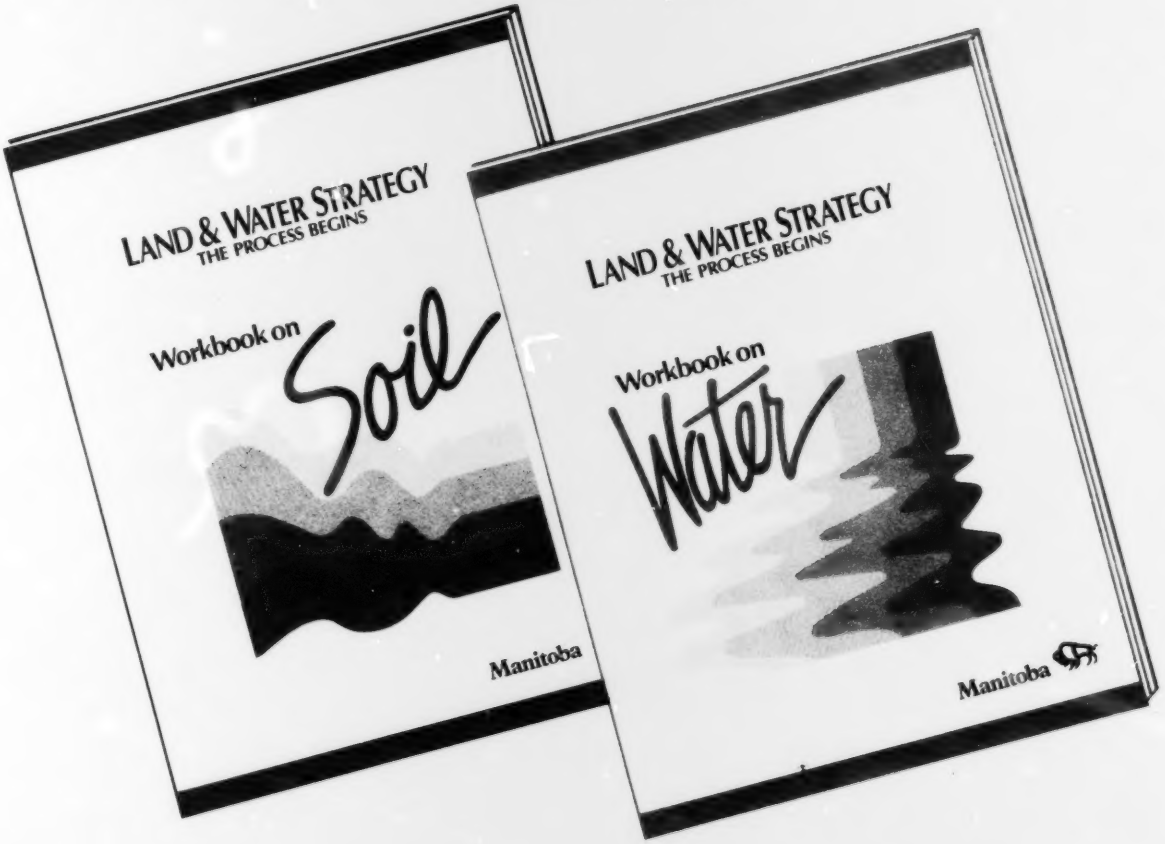
SUSTAINABLE DEVELOPMENT
LAND & WATER STRATEGY
A SUMMARY OF PUBLIC INPUT

What You Told Us



November, 1989

Manitoba

This brochure gives an overview of public comment on soil and water policies which were reviewed earlier this year at meetings and workshops as part of the Provincial Government's Land and Water Strategy.

It was prepared as a follow-up to the public consultation process and to serve as a source of ideas and suggestions for managing the province's soil and water resources. The material was drawn from comments in workbook questionnaires, written submissions, letters and transcripts prepared from notes and recordings at the meetings and workshops. The soil and water policies have been revised in light of this input. The revised wording of each policy appears opposite the draft version for ease of comparison.

The policies continue to undergo revision based on your input, and are scheduled for legislative reviews inearly 1990.

If you have concerns or suggestions in the meantime, please call or write us at the address shown on the back.

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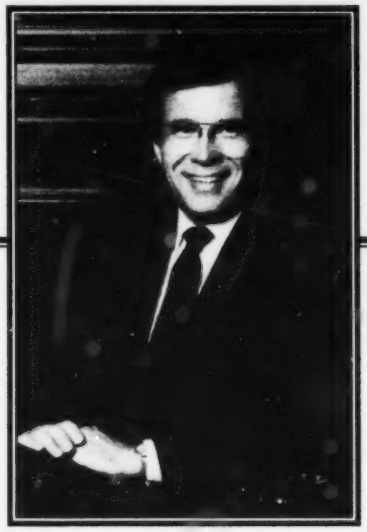


'Many thanks for sharing your ideas and suggestions'

Thank you for sharing your ideas and suggestions on the Land and Water Strategy.

The response was overwhelming. Several thousand people offered their views on topics ranging from potholes and native prairie to incentives versus regulation and programs for drought-proofing the province.

The process has yielded more than half a million words of advice and guidance on ways and means of conserving our environment while creating economic activity. The soil and water policies discussed at the meetings have been refined in light of that advice and guidance, and they will continue to be refined to make them your soil and water policies.

We have now taken the first steps in a process that will culminate in programs and initiatives designed to ensure sustainable development for Manitoba.

I appreciate your helping us take those first steps, and for letting us know that Manitobans are prepared to work together to implement this exciting, practical prescription for change!

Sincerely

Gary Filmon

The Honourable Gary Filmon
Premier of Manitoba

Highlights

The Land and Water Strategy workshops and meetings held earlier this year were part of a public consultation process designed to encourage input to draft soil and water policies for the Province.

Held in major centres throughout the province from January to May, they were attended by several thousand participants from all walks of life.

The views and opinions of participants, delivered verbally and through written submissions, represent an invaluable body of knowledge and insight that has now been used to refine the draft water and soil policies which served as a point of departure for public input.

Water Quality & Conservation Top Priorities

Protecting water quality and the need for water conservation topped the list of concerns at the workshops and meetings.

Most participants spoke of the need to protect the quality of the Province's drinking water.

"If you ain't got clean water," one man put it, "you ain't got nothing."

Comments on water quality often focussed on problems in specific areas of the Province.

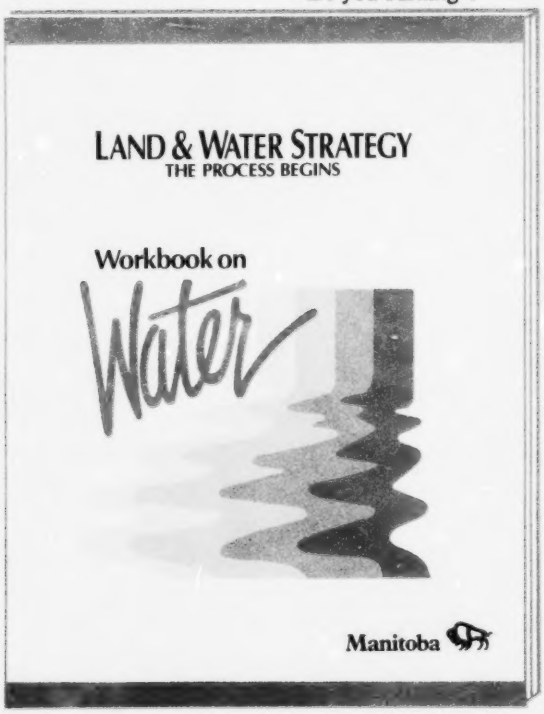
The same regional focus was often true of other issues, adding to the diversity of insights and suggestions and conveying the pressing need for conservation of water, soil, and other resources.

'If conservation of soil and water is to become a way of life, it must be taught in our schools. A whole new generation is coming up'

Education High on List

Education ranked high on the list of concerns. "If conservation of soil and water is to become a way of life, it must be taught in our schools. A whole new generation is coming up."

Participants also stressed another side of education, where neighbours make one another aware of the damage they may be causing. "It's one thing to have a civil servant from Winnipeg call to say don't burn your stubble. It's quite another to have your neighbour ask why are you burning".



One of the biggest criticisms aired at the meetings was that government departments didn't always know what other ones were doing. "One department tells us to build drainage, another one says to tear it down."

Consistency among departments and branches in the implementation of programs was seen as critical.

Less of the "Big Stick"

People stressed the need for local involvement in planning and implementing programs. They wanted government participation, but in the form of direction and consultation rather than dictation. "Give us guidance and direction, but give us the big stick only when we need the big stick."

The Province's conservation districts earned praise as extremely cost effective. "Give a buck to the conservation districts because they'll probably get three out of it."

Water Management

The basin/watershed concept of managing the Province's land and water resources was viewed favourably.

There was considerable opposition to interbasin transfers of water, particularly inter-provincial and international transfers.

People wanted to know more about aquifers - where they are, why it is important to protect them, recharge areas, uses, and sustainable yields.

Many felt that demand management programs should be implemented to conserve water and reduce requirements for new water supply facilities.

There was overwhelming support for the retention of wetlands and it was suggested many times that not just significant waters but all waters should be conserved.

Keeping the Soil at Home

Controlling erosion was seen as key in sustaining the productivity of the province's soils and reducing pollution of lakes and streams caused by runoff from farmlands.

Farming and other agricultural operations should also be protected from highways, urban sprawl, and other development that is encroaching on productive agricultural land.

'This forum on the Land and Water Strategy is just the beginning for us... paving the way for as good or better a tomorrow than we have today'

Incentives Versus Regulation

Low interest loans on equipment for zero and minimum till, compensation for taking marginal land out of use, and tax assessment relief were among incentives suggested to meet the costs of conservation.

'If the incentives are there, we will use methods that do a better job of conserving soil and water.'

"...encourage the retention of sloughs and the planting of tree rows on the west and north side of each quarter section by removing all taxes from any land that meets these criteria."

"If the incentives are there, we will use methods that do a better job of conserving soil and water."

"Who will pay?" was a question that often came up. The general feeling was that "If all Manitobans benefit, then all Manitobans should pay."

Regulations and enforcement were considered necessary to ensure compliance in some situations. But it was thought that these should be secondary and complementary to incentives which must be a key part of "how we do things in future."

Different Areas/Different Needs

Participants often spoke of the need for different approaches in different areas of the Province. "The needs of the dry southwest are different from those on the slopes of the Riding Mountain Escarpment, and very different from the flat, low-lying areas of the Interlake."

While drainage may be appropriate in some areas, in other areas what was suggested was controlled drainage or water management.

But there was complete agreement everywhere that headwater storage and water control were in keeping with the spirit of all six water policies and could be applied throughout the Province.

Discussion often focussed on the need for policies to come to grips with the Province's familiar dilemma: too much water at some times of the year and not enough at others.

One man summed up the problem this way: "I walked in the mud, and six months later I saw it blow away."

Process Appreciated

The government's efforts to develop soil and water policies through public consultation was well received.

But there was also an underlying note of concern that the work must continue. "We will be watching this process closely and perhaps in a year will be providing a report card."

Unique Extremes in the North

A perceived lack of policies for Northern parts of the Province drew several criticisms. "My concern is that I don't see anything on Northerners."

Participants in northern centres felt that the North, with its sparse population and abundant natural resources, has unique conditions that call for special recognition.

Small Is Better

Suggestions for programs generally focussed on small-scale improvements such as backflood irrigation and small dams rather than mega projects.

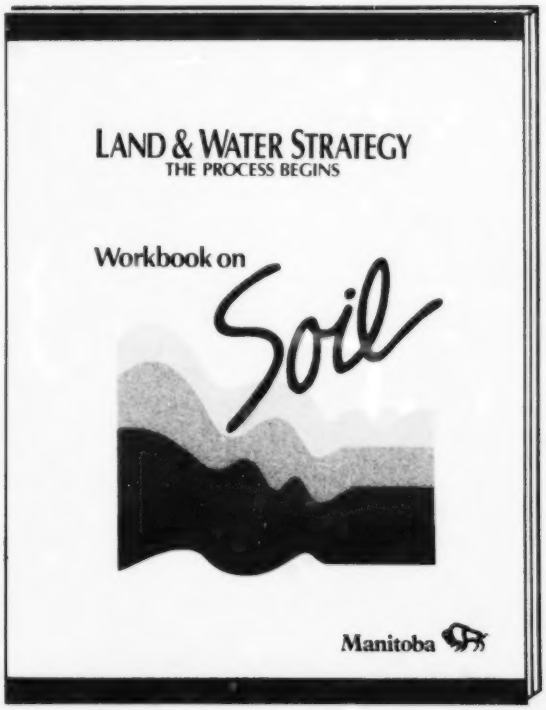
"On-farm programs reaching individual landowners should be a priority."

It was also considered important that "government should spend more on promoting conservation measures that can be undertaken by the average citizen."

Economy Versus Environment

The concept of sustainable development links the economy to the environment. However, many participants saw economic development as antagonistic to environmental protection and vice versa. At one extreme, it was "business as usual" and "the economy comes first." At the other extreme, "ban all development and return the environment to its original pristine state."

But in every case, what mattered most was not the position that people took on the environment/economy spectrum. What mattered was the range of invaluable ideas and insights that they brought to the process.



Background on the Workshops and Meetings

In November 1988, the Honourable Gary Filmon, delivered a speech to the Annual Meeting of the Union of Manitoba Municipalities in Winnipeg.

His presentation, which earned a standing ovation from the audience, outlined the government's strategy for achieving sustainable development in the Province.

In closing he said: "Protecting the environment makes good economic sense. But people have to see it that way before real progress can be made.... This is one of the reasons why we have adopted broad-based public consultation as part of the strategy we are developing."

Public consultation was clearly high on the agenda and critical to the success of the strategy. But how best to go about it ?

Testing the Waters

To help answer this question, 10 introductory public meetings were held in January and February of this year at major centres throughout Manitoba. The meetings were hosted by the Honourable Jack Penner, Minister of Natural Resources at the time, together with the Ministers of Environment, Agriculture, and Municipal Affairs.

Close to 1200 people attended the meetings, and more than 130 presentations were received from individuals, groups, and agencies throughout the private sector.

The meetings focussed on eliciting comments and concerns on draft water policies for managing the Province's water resources.

Participants showed enthusiasm for the consultation process. "We feel involved," was a typical response. "It's about time this happened."

Meetings with Elected Officials

Eight meetings were then held with elected officials of the Association of Urban Municipalities, Assembly of Chiefs, Indigenous Women's Group, Métis Federation, agricultural associations, and several other grassroots organizations to determine the best way of obtaining public input.

Attendees favoured a workshop process that would bring the varying parties of interest to one table to hear and share each other's views.

They also suggested rounding out the water policies by adding soil policies to the discussion. "Whenever you talk about water, you invariably talk about soil."

Workshops

Next came 28 workshops throughout rural and northern Manitoba, culminating in four workshops in Winnipeg at the end of May this year. Draft soil policies had been added to the agenda, and were reviewed with the original water policies at these workshops, which saw a turnout of more than 600 people.

Meetings with Interest Groups

Eight meetings were also held with interest groups, including naturalists, irrigators, and federal agencies that wanted to present their viewpoints and discuss the draft soil and water policies.

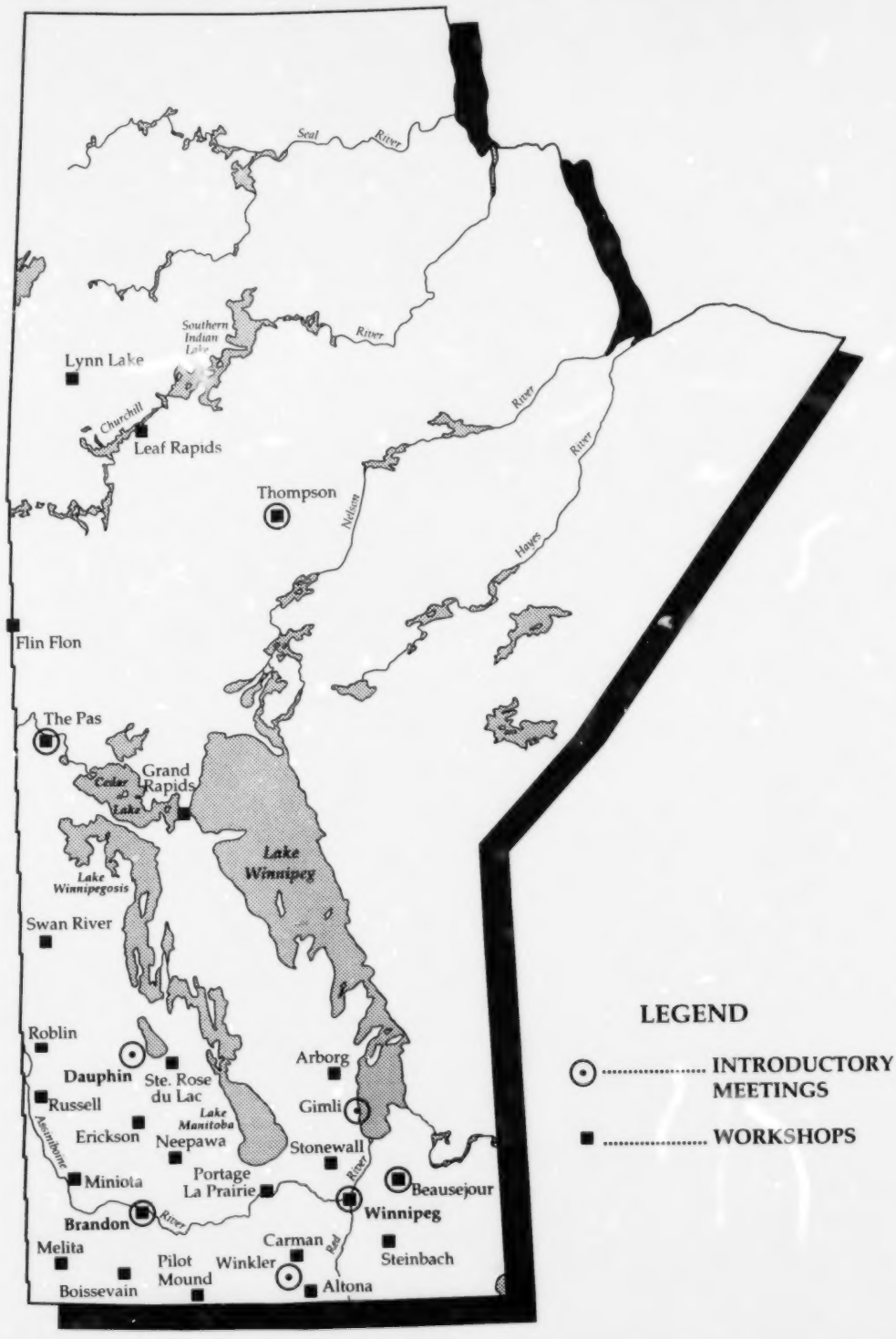
Half a Million Words

Over 500 completed questionnaires, 300 workbooks, and 132 written submissions were received from participants as a result of the process.

Transcripts were also prepared from notes and recordings at the meetings and workshops, bringing the total body of written material to more than half a million words.

Highlights of this feedback are presented in the remaining pages of this booklet.

'Thanks for the opportunity to participate'



Why a Land and Water Strategy?

Because our activities on land affect our water resources, it is vital that we manage our land and water resources together.

This is the position that the Government of Manitoba has taken, and why it has proposed a Land and Water Strategy for the Province.

Conserving the environment while creating economic activity is the objective of the Land and Water Strategy — an objective consistent with the principles of sustainable development set out by the National Task Force of Environment and Economy.

The Task Force defines sustainable development as "...development which ensures that the use of resources and the environment today does not damage prospects for their use by future generations."

The key concept advanced by the Task Force is that the economy and the environment can no longer be viewed in isolation. We must use our resources to survive and prosper, but we must also manage them wisely if they are to be there in future, for our children and grandchildren.

In the past, the economy and the environment were viewed as mutually exclusive. That is no longer an acceptable view.

We can conserve our resource base and generate economic activity at the same time. The Land and Water Strategy points the way.

The Land and Water Strategy is not the only strategy for conserving our environment while creating economic activity. We want to ensure that all aspects of our environment and economy are managed in an integrated fashion, and we want it to be the result of grassroots democracy.

Comments on the Concept of Sustainable Development

"Sustainable development is not one or two big changes but rather a series of small, difficult decisions."

The definition of sustainable development was not a major item of discussion. But support for the concept was evident throughout the process from the enthusiasm with which participants recognized the need for action and wanted to "get on with it."

Some people were concerned about the apparent incompatibility of environmental conservation and economic progress. "...a policy of growth does not sit well with an environmental conservation program."

On the other hand, there was general agreement that "...you and me and everybody else in this province can develop programs that we can all live with."

- Economic development causing environmental destruction could continue if governments carelessly employ the term "sustainable development."
- The concept of sustainable development is already implemented in the conservation district's 20-year management plan.
- For northern Manitoba, a sustainable development definition should be amended to: Development that ensures that utilization of resources and the environment today does not damage prospects for their use by present generations.
- In rural Manitoba conservation districts are the best means of implementing sustainable development according to local concerns and priorities.
- Farming practices must be changed to conserve soil — over production is not sustainable.
- We commend the Government of Manitoba for undertaking a commitment to consider the sustainability of the province's resource base.
- It is refreshing to note the recognition given to the linkage between resource sustainability and the long term good of the provincial economy.
- Sustainable development is not a new idea to Indian people. It is an age old idea among indigenous peoples throughout the world and one that many governments are now just beginning to grasp.
- We are encouraged to note that Manitoba proposes to accept the principle of sustainable development. We are keenly interested that the principle may again be the guiding hand in Indian land. Should these concepts be fulfilled, our future generations may suffer less from the consequences of present and past actions.
- Sustainable development with proper implementation in policy will be of great benefit to the Indian people of northern Manitoba due to our strong dependence on the natural resources around us. Economic growth should not be a necessary prerequisite for environmental conservation. This implies that nothing can be done to help the environment unless there is economic growth.
- One of the main principles, which we are happy to see is being followed here, is the involvement of the users of resources — industry, agriculture, municipalities — in formulating policies that will enable sustainable development to be achieved without sacrificing the environment.
- We need to talk about the sustainable development of our natural resources, about keeping our land in a condition such that our children will be able to derive the kind of incomes and security that you and I have been able to derive from it.
- Aquatic ecosystems should be enhanced and restored — they are an indicator of the success of sustainable development principles.
- Sustainable development is dependent on maintaining the life support systems, recognizing that the biosphere comes first and economics second.
- Before we have a Land and Water Strategy let's have a development and population strategy.
- Water conservation is a fundamental component of sustainable development — soil, wetland and river health is a crucial concern for all involved.

Draft Water Policy 1 Water Quality

OBJECTIVE:
To ensure that surface water and groundwater quality is adequate to meet the needs of all users as well as to protect aquatic ecosystems.

POLICY 1.1
The provincial water quality objectives shall be adopted and continually refined to protect water uses for Manitobans.

POLICY 1.2
Water quality shall be enhanced, where possible, through the active management of water resources.

POLICY 1.3
Water quality enhancement programs will be designed to deliver economic, cultural, environmental quality and heritage benefits to Manitobans.

POLICY 1.4
Wastewater discharges shall be improved and non-point sources of pollution shall be decreased to achieve identified water quality objectives.

POLICY 1.5
Pollution control programs will be designed in consultation with affected user groups and implemented in such a manner as to cause minimum disruptions to established land and water uses.

Overview

Most people agreed that protection of water quality was a top priority, and stressed the need for extensive monitoring, testing programs, and easily understandable water quality information.

User consultation was seen as critical in developing the Surface Water Quality Objectives and in encouraging enhancement programs. Whatever the final objectives, standards, or guidelines are, they must apply equally to all users.

Public education in setting water quality objectives and implementation were also stressed, but enforcement and regulations should be considered where necessary.

Participants expressed concern that wording of the policies put user needs and the economic benefits of clean water above protection of aquatic ecosystems. They felt that water quality must be protected and pollution curtailed even if that meant disrupting established land and water uses.

General Comments

- Take a closer look at pollution of waterways from feedlot operations.
- I strongly agree with the necessity to protect our surface and groundwater for our use and for future generations.
- The quality of water parallels the quality of life. It's bad enough already in places like the Red and La Salle Rivers.
- Some developments only return economic benefits when the burden of cleaning up the polluted waters shifts to downstream users (ie Shoal Lake Indian Band cottage development at Shoal Lake).
- Drainage is a problem due to all the pesticides and herbicides being washed into our rivers and lakes — should encourage farmers to farm organically.
- Clean up the pollution caused by the City of Winnipeg and you will have the largest pollution problem solved. Then clean up pollution caused by smaller towns and villages. Then take on agriculture if it is still necessary.
- Retaining structures in large numbers would slow run-off.
- Use of chemicals by farmers, government agencies and contractors is deplorable. There must be proper policing of this environmental disaster.
- Present water quality testing system places the onus on the individual to determine and solve water quality problems without any help from the government.
- Urban dwellers should be as responsible as rural dwellers.
- More attention should be given to towns and cities polluting the rivers (ie Winnipeg).
- Groundwater is still poorly defined in most of Canada.
- Prevent industrial and urban effluent discharges into river and streams.
- More monitoring should be done.
- Prevention is worth a pound of cure.
- Stop wastes from polluting rivers and streams.
- Standards for industry and private dwellings should apply equally to cities and towns.
- Stop all wastewater discharge into creeks, streams and rivers.
- Town lagoons are a major source of saline pollution.
- Water quality should be improved within established time frames — including the City of Winnipeg.
- Alternative waste disposal methods must be introduced and shared by all society.
- Any user detrimentally affecting water quality should be stopped.
- Education of elected officials may help eliminate the need for strict regulation.
- A small improvement in water quality may be very expensive and not affect the environment.
- Wastewater discharges should not be allowed into natural waterways.
- RM councillors should be responsible for pollution control programs.
- Chemical companies must get involved in the disposal of chemical containers.
- The City of Winnipeg is a good place to start with any pollution control programs.
- Industrial, domestic and agricultural runoff are our major sources of pollution.
- Without active management we will not improve our water quality.
- Don't discharge untreated effluent into lakes or streams.
- Big guys should be targeted first for water quality improvement — industry, pulp and paper — before we go after the little guy.
- Water quality improvements may not be economical but have to be done — the will has to be there.

"The quality of our water parallels the quality of our life"

Suggested Water Policy 1

- Maybe some thought should be given to established uses — they may not be the right ones.
- Maintain potable water supply in our aquifers.
- All society must bear the costs of cleaning up — it must be done quickly.
- Current crops are not native — require pesticides after 3 or 4 yrs to maintain yields.
- Chemicals will be looked at unfavourably in the future — is consumer willing to pay the price for alternate pesticide control?
- Water quality is affected by ground cover on soil.
- Changes in some farming practices may improve water quality.
- Councils would move dump sites if they were in a bad location willingly — don't need regulation.
- More information should be made available to get people interested and concerned about water quality.
- Injection of oil related salt water into aquifers is a problem.
- Government should be concerned about water quality coming into province.
- Disposal of chemical containers — farmers must be involved in decisions.
- Public education is a must.
- What are the costs involved and effects of salt on roadways that seep into aquifers?
- Awareness of household chemicals — their dangers and proper disposal.
- Livestock operations could be a pollution source.
- More education and awareness that pollution should be and is everybody's business.
- Education is better than legislation.
- Everyone (urban and rural) should bear responsibility.
- Policies are OK but the programs have to have some enforcement.
- Look at the disposal of chemical containers — RMs should be involved.
- Use chemicals that have the least amount of residue.
- New regulations needed to ensure chemical disposal sites are located on clay soils to prevent seepage.
- Wastewater discharge from treatment plants should be as clean as the water taken in — this applies especially to towns and cities.
- Nitrogen in groundwater is a concern.
- Pulp and paper plants should use no chlorine bleach in their process.
- Clean up Winnipeg's water.
- Water retention with controlled discharges would recharge groundwater, reduce flooding and provide recreation benefits.
- Discourage livestock operation near rivers and streams — you are putting the water course at risk from pollution of animal wastes.
- Wastewater discharge should be brought in line with provincial water quality standards.
- 2,4-D goes into the air and comes back into the water.
- Spraying roadsides causes pollution, wildflowers are gone.
- 2,4-D in Arctic Ocean.
- Emissions from manufacturing kills crops.
- Urban areas use more chemicals per acre than rural areas.
- Clean Environment Commission too political.
- Manitoba Hydro should be in these policies.
- Always bringing in new environmental laws — old ones are not being enforced.
- One objective missing to increase or maintain the province's wildlife population.
- Everything you put on the land eventually gets into the water.
- People are desperate to get organically grown products.
- What about a marketing approach where you sell off the right to pollute. This would take the pressure off the enforcement end.
- Concern that some are building hog operations on aquifers.
- What about quality in upstream provinces and states?
- How are we going to handle inter-provincial relationships with respect to water quality?
- Education is key because economy will be the hard part.
- Where will we get the money — should start planning now.
- We should approach Ontario about maintaining water quality.
- Groundwater should not be used for thermal uses — can cause turbidity and contamination.
- When existing water quality is much better should you try and maintain it at that level (ie Clearwater Lake)?
- Water may be the poorest component to measure when looking at contaminants.
- Concerns about effects of changes in river flow on Hudson Bay fauna (ie beluga).

Specific Comments on the Policies

Objective

- User needs should be critically analyzed and only fulfilled if the natural aquatic ecosystem is not endangered.
- Add the words "if possible" to the end of the objective.
- Without policing this objective is not possible.
- Trying to meet the needs of all users sounds impossible and dangerous.
- The needs of users are secondary to the protection of aquatic ecosystems. If aquatic

OBJECTIVE:
To protect and enhance our aquatic ecosystems by ensuring that surface water and groundwater quality is adequate for all designated uses.

POLICY 1.1
The Manitoba Surface Water Quality Objectives shall be adopted and implemented to protect water uses for Manitobans.

POLICY 1.2
Water quality shall be enhanced through the management of water resources.

POLICY 1.3
Water quality enhancement programs shall be designed to restore environmental quality, as well as deliver economic, cultural and heritage benefits to Manitobans.

POLICY 1.4
The quality of wastewater discharges shall be improved and non-point sources of pollution decreased to achieve water quality objectives.

POLICY 1.5
Pollution control programs shall be designed in consultation with affected user groups and, where possible, implemented in such a manner as to cause minimum disruption to established land and water uses.

Water Quality cont'd

ecosystems are protected then water quality will be suitable for all potential users.
- Add the words "for present and future generations" to the end of the objective.
- Protection of aquatic ecosystems should not have second billing to user needs — protecting ecosystems is the only way to ensure environmental suitability for all.
- The needs of users may be unattainable/unreasonable.
- Do not wait until it is too late — clean up programs are more expensive then protection and proper management.
- Groundwater in its natural state will at times not meet water quality standards. This statement is therefore unrealistic even for natural systems let alone contamination.
- May not be attainable.
- To ensure groundwater quality and to protect aquatic ecosystems wetland drainage on private land must be restricted and enforced.
- May need legally enforceable water quality standards.

Policy 1.1

- What about water quality standards? Not only objectives but standards should be adopted also.
- Objectives adopted and refined with local input.
- Will it be objectives or standards that are developed? Objectives are often not quantified and as a result are subject to misinterpretation or abuse.
- Will the water quality objectives be the same for all users? Why not different standards for different users?
- How can we know objectives if they are to be continually refined?
- Water quality objectives should be closely looked at and discussed before being adopted.
- How technical will this become — will people understand?
- What are the implications for agriculture?
- Can we redefine water quality without affecting present users?
- Beneficial to address standards in a workable way — can be changed to be practical.
- Local participation needed in setting water quality objectives.
- Mandatory that you have input at the grassroots level.
- Water quality guidelines should be legislated so that they can be enforced.
- Develop a timetable for implementing the water quality objectives.
- Water quality regulations should apply to all — including government.
- Criteria needs to be flexible to suit local needs and problems.
- Policies need to be practical and not too grandiose.
- An inappropriate de-emphasis on regulation. Objectives are not enforceable; standards may be.

Policy 1.2

- The words "where possible" imply exceptions to improving water quality — there should be no excuses.
- Confusing policy — original quality should be optimum — restoring it not "enhancing" it should be the objective.
- The term "management" implies that our ecosystems cannot run themselves — do not overly interfere with natural processes.
- Enhance only when reasonable.
- Manage and enhance only where necessary otherwise it will be too costly.
- If you eliminate pollutants then there is no need for "active management".
- Replace the words "where possible" with "where feasible" or "where necessary" in the policy.
- Define "active management".
- Change "enhanced" to "maintained and restored".
- Common sense must prevail — active management must be combined with public education program.
- Water quality can be enhanced if the activity is directed towards reducing interference with the normal hydrology, rather than towards managing the hydrology.

Policy 1.3

- Agree only to the point that this policy does not affect people's current livelihood.
- Environmental concerns are the most important.
- It would be preferable to put environmental quality ahead of economics.
- Enhancement programs should be designed with local participation.
- Water systems should be maintained and restored to their original quality wherever possible.
- Enhancement programs should be made public and also become part of the school curriculum.

Policy 1.4

- Discharges into our waterways should be as pure or purer than what was taken in.
- Pollution should not only be decreased but eliminated.
- Be sure standards are reasonable and cost effective.
- Where is the "polluter pays" principle?
- Land use practices should be a part of non-point pollution control.
- The identifiable water quality objectives should be clean water not just "improved" water.
- Agree providing water quality objectives are reasonable.
- Change "improved" to "eliminated" and "decreased" to "stopped".
- Maybe aim higher for improved water quality.
- Concerned that standards for wastewater discharges will be based on southern Manitoba's definition and will not take into account the unique concerns/problems of the north.
- Economic barriers must be subjugated to environmental need.
- There should be a minimum requirement for pollution levels, not just objectives.

Policy 1.5

- Minimum disruptions to established uses is too lenient. If current practices are environmentally unsound they must be changed — user groups must accept this.
- The phrase "as to cause minimum disruption" is all too often an escape clause for non-compliance and should be reconsidered. Some disruptions may be necessary.
- What does "affected user groups" mean? Does it mean the loudest lobbyists will get preference while the individual will be ignored?
- "Minimum disruption to established land and water uses" — does this mean if one has been polluting a lot for a long time one can continue to do so?
- Does this mean that established land and water uses will supercede pollution control programs?
- Pollution control programs should be designed to minimize pollution and NOT to minimize disruptions.
- User groups should be involved for a workable solution.
- Local participation required.
- Must involve consultation.
- Reword to read: "Pollution programs will be designed and implemented in consultation with affected user groups".
- The consultative approach has limitations (implication: regulations needed).
- Where established land and water uses disrupt natural ecosystems they should be phased out if possible.
- Compensation may have to be offered to users affected by pollution control programs - if compensation rejected it may be necessary to use enforcement.
- If we cannot change established uses, we will have little room in which to create sustainable development strategy.
- Need something like Legal Environmental Assessment.
- Environmental assessments are impossible because we don't know the environmental impacts—need baseline data.

"Water quality should be regularly monitored and results made available to the public"

Programs and Initiatives That You Suggested ...

- The Clean Environment Act should be changed to read "NO septic fields allowed in sandy or porous soils".
- Encourage farmers and town fathers to irrigate alfalfa and some grain crops with effluent.
- Stop issuing new licenses for aquifer withdrawals for irrigation until the impacts of chemical residue washed back into the aquifer can be assessed.
- Phase out winter salting of roadways and replace with heated or dried sand.
- Enact legislation so that all boats with kitchen and bathroom facilities use holding tanks and only discharge them at approved disposal sites instead of into rivers and lakes as is the current practice.
- Minimize the use of salt on our roadways and do not pile snow near waterbodies.
- Abolish the discharge of raw sewage into any waterbody.
- Establish a long term extensive and intensive water quality monitoring program to determine the exact state of our water quality.
- Eliminate all nuclear power plants at whatever cost — the waste is absolutely unacceptable.
- Should have regional labs to test for water quality.
- Waste and chemical management must be promoted through education and incentives.
- All livestock manure should be injected or plowed back into the ground as soon as it is deposited.
- Testing for "space age" chemicals such as PCBs on a regular basis is essential — recommend accessible and affordable regional laboratories be established.
- Water quality should be regularly monitored and results made available to the public.
- Baseline studies required to document the water quality of the natural water system.
- Establish buffer zones approximately 500 feet above high water level on all banks of rivers and streams.
- Establish water pricing for big users.
- Garbage dumps in low lying areas should be cleaned up.
- Drainage should be allowed by permit only.
- Tax cuts and/or incentives to retain bush and wetlands.
- Programs could start with upgrading of town sewers and waste water treatment.
- Regulations should be put on all wastewater discharges, especially discharges into groundwater aquifers.
- Wastewater must be treated or naturally purified before discharging into a waterway.
- All wastewater should be used for irrigation.
- Encourage recycling of wastewater.
- Control run-off using dams and tree cover.
- Need vigorous water quality testing and monitoring at all industrial and agricultural outflows.
- Wastewater discharges must have minimum standards placed on them equal to or greater than the quality of the receiving water course.
- Cap old wells to prevent seepage and contamination of groundwater.
- RM councillors should be responsible for pollution control programs.
- Better design and location of sewage lagoons.
- Fines should be imposed for lack of adherence to appropriate effluent standards.
- Promote mowing of highway ditches rather than chemical spraying to control weeds.
- Some ditches cannot be mowed because of stones and have to be sprayed — should consider rebuilding such ditches.
- Irrigate golf courses with effluent.
- Monitoring of water quality.
- Water quality information should be made public and be readily available.
- Research into non-point sources of pollution needed.
- Monitor water quality — especially for domestic use.
- Stricter controls for septic tanks at lakes and high population areas.
- Recycle chemical containers rather than disposing of them.
- Grow buffer zones of trees and grass around waterways.
- Stricter rules needed for landfill sites and disposal of chemical containers.
- Involve the town, polluter and other affected user groups in designing pollution control programs.
- Companies should publish a guide listing their responsibilities in protecting the environment.
- Update mapping and sampling of water systems.
- Stay in continuous communication with US agencies and monitor international waters.
- Need more enforcement over disposal of dead animals and waste.
- Have industry, hydro and municipalities set up chemical container disposal sites.
- Effluent should be used to irrigate hayland.
- Municipal garbage dumps must be cleaned up — do not put in low lying areas because of damage to groundwater.
- Need monitoring of surface and groundwater quality.
- More research on agricultural chemicals to determine their effects on the environment.
- More research on the effects of herbicides and pesticides that enter the aquifers.
- Evaluate soil conditions to ensure chemicals will not seep into soil.
- Ensure access (weekends and holidays) to dumps — make convenient.
- More long term planning needed (ie livestock operations, long term care of aquifers).
- Lagoon effluent used for irrigation.
- Redesign chem containers to ensure all chemicals flow out — increase rebate on empty jugs — $1 in effect now ($750,000 will be taken in 1989 — need direction for this money).
- Chemical users should be registered and records of use should be kept.
- Need more stringent regulations and stronger penalties for abusers.
- Chemicals should be sold in reusable and returnable containers.
- Put a surcharge on chemical containers that will be refunded upon return of the empty container.
- Establish proper disposal sites for hazardous wastes.
- Encourage manufacture of dissolvable containers.
- Increase water sampling programs, greater frequency of testing.
- Increase awareness of herbicide use along waterways.
- Monitoring of wastewater should be systematic and occur at regular intervals.
- Eliminate underground petroleum tanks to reduce contamination.

Draft Water Policy 2 Conservation

Overview

Conservation proved to be an extremely popular issue, as evidenced by the volume of comments on this policy and from the emotion expressed on the subject at meetings and in letters and questionnaires.

Participants came out strongly in support of the policy, with frequent calls for immediate steps to ensure that our water resources are conserved — not just to provide benefits in the future, but because "it's the right thing to do." Some people also pointed out that the "environment must take precedence over the economy."

OBJECTIVE

To conserve and manage the lakes, rivers, and wetlands of Manitoba so that they can continue to provide economic, aesthetic, and environmental benefits to existing and future generations.

POLICY 2.1

Significant river, lake, and shoreland habitat and the general environmental, subsistence, and economic values of rivers and lakes shall be conserved for the benefit of Manitobans.

POLICY 2.2

Soil conservation, wetland retention, and the application of appropriate land use practices shall be promoted by the provision of incentives, not only as essential elements of water conservation and protection, but also as key measures to reduce siltation impacts, downstream flooding, and non-point source pollution.

General Comments

- We would hope that the water conservation strategy would go one step further and conserve selected areas of the Province for its purity and pristine conditions and its large supply and for the species which use it, fish, waterfowl and wildlife.
- Very good. Much needed. Its about time!
- How are the economic benefits of conservation rated against the aesthetic and environmental benefits?
- Rebuild, repair and restore recognizing that what remains of our environment is more than just a resource.
- Protection of water bodies and shorelands often requires the management of larger surrounding areas — a watershed approach is needed for this.
- Care should be taken to insure that conservation of wildlife/waterfowl, for example, does not adversely impact on surrounding interests or else compensation should be considered.
- Cattle operations should not be allowed next to a water course.
- Conservation difficult if only one water source is available to provide flood control, water supply, recreation and possibly irrigation.
- How do you solve the agriculture/recreation conflict?
- Do not allow farming of marginal lands.
- How are we going to deal with the present problems in our rivers and lakes?
- Activate existing relevant legislation to achieve water pricing. Strict controls for high profile (major) water users.
- Why is the government going to give incentives for correcting wrongdoings? "Incentives should not be used to bribe people into doing what is right". Use regulation, its cheaper.
- Incentives need to be accompanied by education and public awareness programs showing long term benefits.
- We are in real trouble if we don't stop draining.
- There is a danger that incentives will become relied upon.
- The environment must be protected by laws with teeth, not politicians' ever changing opinions.
- The funding of programs to maintain or enhance the soil and water resources of the country must be supported by all those affected: ie the general populace.
- Focus soil and water conservation on the farm.
- Need more research into crop rotation, zero till and pesticides.
- Go to minimum till first; when you jump to zero till it is too drastic to be accepted.
- To be effective – policy must be applied on a watershed basis – start at the headwaters.
- A greater emphasis should be placed on protection of wetlands and prairie potholes and other selected areas.
- Identify sloughs and bush as non taxable areas.
- If soil and water management programs are to be successful, their development, implementation and delivery must include input from those people directly affected by the problems. This should be accomplished by the involvement of agencies such as Conservation Districts, and Soil and Water Associations, which include strong "grassroots" representation.
- The delivery of soil and water management programs should lean toward accomplishing their ends by employing incentives, rather than by regulation; ie with the public bearing the cost up front, rather than producers trying to recover related costs from the market place.
- In determining water management initiatives, the system must be considered as a whole, rather than as individual projects (ie

'Very good. Much needed. It's about time!'

Suggested Water Policy 2

water management in a given area may involve a deficiency of water at times, and an excess of water at others).

- Water management programs must be well planned and systematic so projects in one area do not adversely affect another area. Individual problems must not be solved by creating problems for others. In this connection, further attention must be given to regulations dealing with on-farm drainage.
- It is ridiculous to have the same conservation and drainage policies in the Red River Valley as in the Minnedosa pothole country.
- We cannot survive on water alone; we must also conserve the soil to absorb the water to produce food for humanity.
- Primary aim should be to improve agricultural conservation of soil and water. Incentives should be directed to agricultural water and soil conservation. The spinoff from agriculture will look after wildlife and recreation.
- If you take care of soil, the soil will take care of you.
- Much can be achieved in soil and water conservation at the farm and municipal level by consultation, not by the heavy hand of reactionary regulation.
- Greater public awareness of problems and long term benefits of conservation is my vision for the future.
- Activate the existing legislation to control lakes and ditches for flow and pollution.
- Water can be retained on the land more effectively by re-establishing wetlands through the use of small dams. This would afford better wildlife habitat, do little damage to the environment and provide a handy water supply for farmers.
- I do not want to see wetland drainage.
- I am concerned that economics will continue to speak forth over conservation.
- We shouldn't be draining all our pothole water to Hudson Bay.
- Application of these proposed policies will be very beneficial to our water and soil. We are doing a lot to improve the situation but we need to do a lot more.
- Manitoba has a varied terrain so that a policy for one area may be of no concern to another, therefore, conservation districts should have different objectives.
- Hope to see the rural area of Manitoba become a full parkland with many, many catch basins and tree rows.
- Concerned about damming Manitoba's rivers and that most of the policies for water management cause unnatural flow disturbances which are environmentally unsound.
- Protection of wetlands has not been mentioned specifically.
- Pristine waters or waterways do not appear to have been considered.
- Conservation and our environment should be our top priority. All efforts should be made to conserve our farmlands and leave bushlands, streams and lakes in their natural form.
- Good initiative. There needs to be at least as much done on a strategy for conservation of water at the consumer level as there has been on the management of the resources level. Conservation at the user level will have greatest consequence in water quantity management.
- There is a need to educate landowners about wise use and conservation of natural resources. Farmers are businessmen you cannot expect to worry about wildlife and conservation when it costs them out of pocket so you must deplore them to think of the future.
- Keep waterways, rivers etc. clean and controlled and our land beautiful and profitable for our children and grandchildren.
- Preservation of water and all natural resources.
- Concerned about loss of wetland habitat for waterfowl and with water level fluctuations from dam development and its impact on habitat.
- The northern basins contain some of Manitoba's most aesthetic, cultural, historic, etc. water systems (ie Seal R., Hayes R.).
- Maintain the wetlands, the duck factories. Don't sacrifice them for short economic gain.
- Pleased that the conservation policy is listed ahead (has priority?) over use and allocation. Concerned that in political realities, economic considerations will take precedence over environmental considerations. It should be recognized that there are economic spinoffs from the application of environmental protection matters.
- Some incentive to the landowner in the form of tax rebate etc. for taking steps to reduce erosion.
- Need to develop a conservation strategy for Manitoba including a system of ecological reserves prior to allocation of water and more land for other uses.
- Economic growth destroys environmental and heritage conservation. Every bit of the environment that we use and lose is that much less for future generations.
- Present economic criteria secondary to conserving our resources for future generations.

OBJECTIVE

To conserve and manage the lakes, rivers, and wetlands of Manitoba so as to protect the ability of the environment to sustain life and provide environmental, economic and aesthetic benefits to existing and future generations.

POLICY 2.1

River, lake, and shoreland habitat and the general environmental, subsistence, and economic values of rivers, lakes and wetlands shall, where possible, be conserved.

POLICY 2.2

Soil conservation, wetland retention, and the application of appropriate land use practices shall be promoted primarily by the provision of incentives, but with regulation where required, not only as essential elements of water conservation and protection, but also as key measures to reduce siltation impacts, downstream flooding, and non-point source pollution.

POLICY 2.3

Those waterways whose cultural, natural and/or recreational values are of provincial or national significance shall be given special consideration.

POLICY 2.4

Water retention, control, and timing of runoff shall be promoted as part of watershed management. (Same as Water Policy 6.7)

Conservation cont'd

- In the conflict between economic development and environmental preservation, the environment will lose.
- Concerned about impacts to our natural environment. Government officials should rely more on scientific input because in the long term, the environment will only support human and other life if treated with respect.
- Hope that waterways are protected and enhanced for future generations of Manitobans.
- Leave many of Manitoba's rivers in a natural state.
- I would like to see a number of incentives drawn up by various agencies to slow or stop the degradation and destruction of wetland and other marginal lands. The greatest contribution can be made by the individual landowner if given the the proper backup or assistance.
- Manitoba should be a leader in conservation.

Specific Comments on the Policies

Objective

- To conserve is the objective, management is the tool.
- Agreeable, but too general (motherhood) – clarify by stating your intended goal "up front" so the public can react to it.
- Define or explain what you mean by "conservation", "aesthetic" and "economic".
- Do not let economics have priority over conservation or environmental considerations.
- Include conservation of groundwater. Add "cultural" benefits.
- Conserve ecosystems, not just the lakes, rivers and wetlands.
- Conserve yes. Manage no! Let Nature take Her course undisturbed, undiverted and unhunted.
- Important water areas will require management to preserve their uniqueness. How do you get wetlands back after they've been drained?
- And restore before damage is irreversible.
- If you don't use your water it will evaporate anyway.
- Providing future benefits (exploitation) shouldn't be the goal of conservation.
- The environment should be protected for its own sake, for our sake, not for economic gain.
- Recognize the intrinsic value of water bodies and associated shorelands – our survival depends on bending to fit the laws of biosphere homeostasis.
- Conservation at the user level needs to be established and practiced as well as conservation at the resource management level.
- Good, but intrinsic values should be recognized as well as benefits to humans.
- If you keep putting economics ahead of environmental benefits, its not going to work

Policy 2.1

- "Significant areas" is not defined.
- Good, but how are you to decide what is "significant"?
- I think they are all significant.
- How is "significant" decided? Aren't all waterways important, all water habitats important?
- What does "significant" mean?
- Insert the word "wetland" after the word "lake".
- If a farmer's agricultural base is restricted, how will he be compensated?
- Replace "Manitobans" with "earth".
- Shall be conserved for everyone; with least possible disruption to residents.
- Add wetlands.
- Agree. Commendable. Let's do it.
- Define "significant". Delineate these "significant" areas.
- "...conserved for the benefit of all Manitobans and all others who value living things; conserved for everyone; for the world"
- Are wetlands/sloughs included?
- What does "shall be" conserved mean? Control? Regulation? How do we enforce?
- To what extent do we want conservation? What about the differences between the urban and rural perspective?
- Aren't all waterways and water habitats important and to be conserved? How is "significant" decided?
- Where mistakes have been made, they should be corrected.
- Stop putting a dollar value to nature – it's priceless. Our rivers and lakes are not for sale.
- Define general environmental value.

Policy 2.2

- Activate the existing legislation to control lakes and ditches for flow and pollution.
- Agree to the point of affecting peoples' livelihoods.
- Long overdue.
- Sounds great if implemented.
- "Appropriate practices" should be stated publicly ahead of time. I hate government secrecy and politician doubletalk.
- This is a must.
- Agree; long overdue; strongly support.
- Include fish – they are an indicator of watershed health.
- Include rehabilitation or restoration of impacted lakes, streams, etc.
- You need different policies for the Red River Valley than you do for the Minnedosa pothole area.
- Policy seems to point the finger at agriculture as the bad guy; get priorities straight.

' The environment should be protected for its own sake, for our sake, not for economic gain '

Programs and Initiatives That You Suggested ...

- Maintain vegetation strips along river banks.
- Establish buffer zones next to water bodies.
- Control shoreline watering of cattle with financial assistance for fencing.
- Small inexpensive dams are needed to retain water as long as possible providing many benefits and preventing flooding and erosion damages.
- Incentives are needed to retain and protect wetlands.
- Education is the key. The agricultural community should have input into this addition to the school curriculum and program to enhance public awareness of the need for conservation and water management.
- Incentives could be in the form of tax rebates.
- Government should buy back marginal agricultural land.
- Go ahead with demonstration projects.
- Leave natural buffer or control zones around waterbodies. No farming here.
- Undeveloped road allowances should be legislated into conservation corridors.
- Significant or Heritage waterways will require management to preserve uniqueness and prevent nuisances or hazardous conditions.
- Prairie potholes should be conserved where practicable.
- Support North American Waterfowl Plan, HELP Program and Heritage Parks Program including designation of Delta Marsh.
- Action needed on Dauphin Lake.
- Recycle water wherever possible; maximize its use and conserve water where it falls. Plant more crops that are drought resistant.
- Protect Clearwater Lake and Shoal Lake.
- To encourage retention of habitat or marginal land, the land tax assessment system should be adjusted to remove native areas from taxation showing this clearly on the bills.
- Tax reductions on conservation equipment should be instituted.
- Develop a provincial home study course on water management.
- Include rejuvenation and development of small lakes for irrigation, fish farming, etc. by building small earthen dams.
- Land altering permits should be introduced so that landowners and conservation managers could coordinate activities to reduce the need for future rehabilitation.
- Plant trees, grass, and other native vegetation in headwater areas; reduce cultivation and fallowing; put in more shelterbelts.
- Develop a multi-purpose land and water resource plan for Big Grass Marsh.
- Develop a small dam and wetland retention program.
- Conservation districts programs should be expanded to other areas.
- When you do positive things with your land you should get bonuses.
- The funding for natural resource programs should come from appropriate governmental departments and/or other related agencies, not just from agricultural budgets.
- Conservation districts budgets should be set to allow a minimum of drainage activity and a maximum of conservation work.
- Tax deductible rental of private lands to conservationists.
- Re-acquire riparian land along major waterways.
- Loggers should leave a 500 foot buffer along each side of the river.
- Wetlands should have a low assessment, clearly marked as such on page 1 of the assessment.
- Change Wheat Board quota to encourage conservation of wetlands.
- Regulate the methods of cultivation to minimize damages.
- Purchase critical wildlife habitat.
- Use Crown land as wildlife management areas.
- Wildland preservation agreements on private land – with economic incentives.
- More dams on rivers where possible.
- Include rejuvenation and devel.opment of small lakes for irrigation, fish farming etc. by inexpensive small earthen dams.
- Take a close look at our recreational lakes such as Rocky, Athapapuskow and Clearwater. These must be conserved for future generations.
- Protect important riverways from development. Leave something in its natural state.
- Maintain treed shorelines.
- Stop all development within 100 m of a river or lake. Protect tree cover here.
- Possible renting of private lands and rivers to conservationists – tax deductible — ie Ducks Unlimited - because there is a problem with some of this conservation in that it is up to the landowner to do all of the financing.
- Retention dams or in channel weirs will have to be constructed.
- This could be considered using land such as the Pembina Valley south of Kaleida and Darlingford for water conservation as this land is a lot of shale and not very productive.
- This should include the re-acquiring of riparian land of major streams by the Crown in order to protect the vegetation which is important in the ecology of these waters.
- A significant lake such as Grace Lake must be conserved because of the subsistence of residential and agricultural use.
- Very important. Many waterways in southern Manitoba have no natural buffer zones — ie Whitemouth River. Introduce program to establish 50–100 metre buffer zones.
- The shoreline habitat also requires a management program as some harvesting is essential to protect it and minimize hazards.
- Land drainage must be stopped. Wetlands, sloughs, and potholes have to be replaced to conserve groundwater.
- Plant harvestable trees such as hybrid poplar or aspen for a potential wafer board plant in the Swan River area.
- Drainage should be curtailed and water stored in several locations.
- Stop clearing bogs. Plant trees.
- Tree and shrub plantings to reduce wind and also in some low areas to slowdown evaporation.
- Retaining wetlands .
- Shelterbelt planting should be promoted by tax incentives.
- Besides incentives – by regulation of use (much better than at present). Identify need for ecosystem reserves and endangered wildlife protection.
- Bring back wetlands.
- Money in the form of tax easements could act as an incentive but like everything else it would have to be monitored. Another possible incentive would be to award hefty conservation awards in big dollars.
- I know some farmers who would be happy to leave wetlands untouched if there were the right incentives like tax reduction.

Draft Water Policy 3 Use & Allocation

OBJECTIVE

To facilitate use of the Province's water resource endowment for the overall economic, aesthetic, and environmental benefit of Manitobans and to ensure that the required surface water and groundwater supplies are maintained in a long-term sustainable state.

POLICY 3.1

Manitoba's water resources shall be used to achieve and maintain economic well-being through their utilization and optimum economic allocation for domestic, municipal, industrial, commercial, and agricultural purposes as well as in-stream uses such as recreation, navigation, aesthetic enjoyment, fish and wildlife habitat, waste assimilation, and power generation.

POLICY 3.2

Allocation priorities for groundwater and surface water shall be determined through a basin planning process for Manitoba taking into account existing commitments, economic requirements, environmental integrity, and the protection of potable water supplies.

POLICY 3.3

Groundwater development and utilization shall be controlled so that the long-term sustainable yields of aquifers are not exceeded and uses are not negatively impacted.

POLICY 3.4

Surface water shall be managed to ensure reliability of supplies for the priority of uses of Manitobans.

POLICY 3.5

Interbasin transfers of water shall be permitted when justified based on full examination of all relevant economic and environmental factors.

Overview

There was general support for the proposition that water use be sustainable. But respondents questioned the priorities implied in the draft policies. They stressed local input into setting priorities to reflect regional differences.

Concerns were voiced about the need to consider the ecosystem. The basin or watershed concept was repeatedly recommended.

Small dams received widespread support as a cost effective way of reducing the need for large dams and drainage systems while providing water supply, flood control, and wildlife habitat.

The policy on inter-basin transfers provoked strong reaction. With few exceptions, opinion ran clearly against inter-basin transfers, especially for purposes other than drinking water.

People wanted to know more about aquifers: where they are, recharge areas, uses, sustainable yields, and why it is necessary to protect them.

General Comments

- Underground water sources should be managed according to a long-term plan with an identified management body.
- What about protection of groundwater quality as well as quantity?
- Increased monitoring of our waterways and lakes to see what is happening.
- Public should pay for monitoring since it is in the public interest.
- Not friendly to the idea of using groundwater for irrigation.
- Control the use and allocation of water.
- Closer monitoring of groundwater withdrawals required.
- Does this mean that we will have a wetland protection program?
- No development (like hydro projects) without public consultation.
- Navigation may limit development.
- Local people should have some input as to water use in their area.
- Mechanism for protecting established irrigators for a reasonable length of time.
- Change priority uses between regions?
- Recognize prior rights of current existing agricultural enterprises as priority over recreation.
- How do we deal with conflicting use?
- Use should not be determined at the expense of future generations.
- Existing legislation is in place but enforcement is needed.
- Who is going to turn the tap off when the time comes? (answer: government)
- Will this policy protect communities' traditional uses?
- Concern that all northern basins will become developed for the benefit of southern Manitoba.
- Local people should be consulted prior to any new development.
- If you do not use it (water) it will evaporate anyway.
- Residents of the basin should be involved in determining the priorities.
- Does this policy put an extraordinary economic burden on communities dependent on the aquifer?
- Why irrigate to produce more when we can't sell what we're already producing?
- We should monitor water coming into the aquifer.
- What are implications for centers using non-renewing aquifers (ie Winkler)?
- If the potable water supply is in danger of being depleted it should not be shared.
- If Policy 3.1 handled properly then 3.1 and 3.2 will be good.
- Water drained from poor quality land affects good quality land.
- Who is going to priorize use?
- Good luck implementing this policy.
- Basin planning should be for Manitoba only.

' Residents of the basin should be involved in determining the priorities '

Suggested Water Policy 3

- Local requirements must be met first.
- Must have local input for allocation priorities.
- Allocation decisions should be made from local management boards and not come from Winnipeg.
- Must be some way of cancelling licenses if misused or abused.
- Irrigation should have priority over livestock — cannot truck water for irrigation.
- License should be permanent with annual renewal if being used. Important to be transferrable by vendor.
- Agricultural water use should be third priority after domestic and municipal use.
- Agricultural irrigation should be distinguished from non-agricultural irrigation. Licenses should be unlimited in time and transferable.
- Farmers should have free access to their own water supplies except for irrigation.
- Do we know how fast our aquifers are being recharged?
- Where do we get alternate sources if demand outstrips supply?
- How can it be policed?
- Permits should be cancelled when groundwater levels fall below a pre-determined level.
- Who will enforce?
- Determine yields before issuing licenses.
- Strictly control amount of water used for irrigation.
- Concern over accurate determination of sustainable yields for aquifers.
- Can't be done — you can't control groundwater development without impacting someone or something.
- Where and to whom do you say no?
- Must be legislated and policed.
- Pollution of groundwater by freon is a concern.
- Groundwater irrigation is a big investment — not portable like a surface source system.
- Must consider downstream effects of surface water management.
- Security of supplies needed for irrigators.
- Concerns with international waters.
- Water flowing from one RM to another should be the responsibility of the province.
- Irrigation is a waste of water.
- Residents should be consulted.
- Avoid unrealistic secondary benefit/cost ratios by having outside agency evaluate.
- Small interbasin transfer may be okay — larger ones very questionable.
- Need cooperation between provinces, different jurisdictions regarding drainage in Saskatchewan.
- Interbasin transfers should be kept to a minimum because the implications are often unforeseen.
- Don't like the idea of interbasin transfers, especially to the US.
- Very cautious about transferring water from one basin to another.
- Interbasin transfers should be within the province only.
- Full impact study must be done before considering any transfers (ie Rafferty-Alameda).
- Need a mechanism that would address concerns of the affected users.
- Small dams are preferable to very large projects.
- Should be programs developed for water storage, small dams, habitat retention.
- Should encourage storage of snowmelt water for later use (ie backflood irrigation).
- Implement multiple use projects.
- Will policies affect Seal River development?
- Environmental conservation a prerequisite for development.
- Water development policy needed for southern Manitoba.
- Irrigation water use should be included as agricultural use in Water Rights Act.
- Water should be conserved, not drained as quickly as possible to Hudson Bay.
- Impacts of hydro development and northern land claims should be considered.
- Other alternatives should be looked at before more dams are built.
- Must look ecologically at dam projects, be more certain of benefits and costs.
- A conservation ethic among water users.
- Decline in fisheries — need to look at Ontario model, consult with fishermen and allocate game species to commercial fishermen.
- Fish and wildlife sensitive to hydro development and Ducks Unlimited projects.
- Sport fishing adversely impacts on commercial fishing — need more control over fishing lodges.
- Standard of service not the same throughout Manitoba — residents on Split Lake must truck in water supplies.

OBJECTIVE

To ensure the long term sustainability of the Province's surface water and groundwater for the benefit of all Manitobans.

POLICY 3.1

Economic well being and sustainability shall be the goal in the allocation and utilization of Manitoba's water resources for consumptive and instream uses.

POLICY 3.2

Water management priorities shall be determined through a basin planning process that takes into account the protection of potable water supplies, environmental integrity, existing commitments and economic requirements.

POLICY 3.3

Groundwater development and utilization shall be managed so that the long term sustainability of aquifers is achieved and existing uses are not negatively impacted.

POLICY 3.4

Surface water shall be managed to ensure sustainability of supplies.

POLICY 3.5

Transfers of untreated water across the Continental Divide (to or from the Hudson Bay drainage area) shall be opposed. Transfers within the Hudson Bay drainage area in Manitoba shall be minimized and only considered after a complete assessment of the environmental, social and economic impacts on the donor and receiving basins.

Use & Allocation cont'd

- Retention dams could improve muskrat and fish habitat. Dam licensing process needs to be streamlined.
- Hydro development a factor in sport and commercial fishery degradation due to low water and pollution.
- Number one policy should be that any projects require full environmental assessments.
- Environmental assessments must include wildlife and habitat.
- Environmental impact studies essential for storage projects, must be done by independent groups, not proponents.
- Government should not be able to stop flows on streams.
- Will water strategy address issue of storage structures to ensure reliable supplies?
- Inter-basin transfers close to playing God, cannot understand all impacts.
- There should be no interbasin transfers until ecological impacts can be measured.
- Concerned about over-managing surface water.
- Full environmental assessments and public hearings required when considering large projects such as interbasin transfers.
- Big diversions can be good.
- This policy does not apply in the Roblin area.
- Need more rational approach for small dams — ie smaller outlets.
- The Red River is not a reliable water supply for the future.

Specific Comments on the Policies

Objective

- Add something to encourage a conservation ethic.
- Drop the word "endowment".
- This objective should state that absolutely no transfer of water from northern Manitoba to southern Manitoba should be considered.
- Conservation should be the focus in this objective — conserve water for other than economic reasons.
- What are priorities, how are they established? Who makes decision and can it be appealed?
- Good, but listing economic concerns ahead of environmental may cause some discussion.
- Agriculture should have top priority for water use.
- Stop putting economics first.
- Always put environmental benefits ahead of economic benefits.

Policy 3.1

- Identify priorities.
- Listed in order of priority?
- Navigation may limit development.
- Who sets recreation priorities and who pays?
- What about privately owned land along and under streams?
- Are they listed in order of priority? (agriculture after domestic?)
- Agriculture should be higher priority.
- Cannot please everyone — must establish priorities.
- Define domestic — does this include livestock?
- Concerned that agricultural uses not be placed too low in priority.
- Policy is too broad — difficult to implement completely.
- What is the priority of use — what is the influence on other uses?
- Concerned over agriculture's apparent lack of priority in listing.
- Agree with the order of priority.
- Too much emphasis on economic gain rather than on the protection of the environment.
- Add an opening to policy "Security and protection shall be provided to Manitobans by ensuring that Manitoba's water resources shall be used to achieve..."
- That the main concern is still to protect the farmer's right to farm his land along set water systems. This over top of recreation, navigation, etc.
- Agriculture should be higher priority — domestic, municipal, agricultural, then commercial. Irrigation should be included as agricultural.
- Who has priority — is it in the order listed?
- What are the priorities?
- Too many competing uses — highest and best uses will have to be determined.
- This policy should be the objective.
- Remove the word "optimum" from the policy.
- Too encompassing — appears to be in conflict with water use strategy.
- Define what you mean by "maximum economic allocation" — this statement is not compatible with sustainable development.
- Some users are mutually exclusive and this must be recognized in the policy — ie can fisheries take precedence over Hydro?
- For whose "economic well being" are we going to allocate and use water — for all Manitobans regardless of local concerns? Must define this statement
- Admirable but not realistic — attempts to be all things to all people. Establish priorities.
- Many conflicting uses — which will get priority?
- Optimum economic considerations are important, but environmental concerns must be considered above all others.
- Environmental integrity is the most important use.
- Maintain present water use priorities.
- "Will be designed in consultation with affected user groups" — include to ensure that local concerns are addressed — might permit actual land and water use by local people.
- "Utilization and optimum economic allocation". Take precedence over environmental aspects?
- Will economic well being take precedence over Policy 3.2? Will the public have a role in allocation?
- Good, but economic ahead of environmental concerns could cause discussion. Private use should be protected.
- Should be secondary to achieving and maintaining the integrity of Manitoba's ecosystems.
- Fish and wildlife habitat are pretty low down on the list.
- Okay if "optimal" applies to land and water, not population.
- Don't dam. "Optimal economic allocation" and "power generation" conflict with other purposes in same sentence. Public must know how purposes are ranked. Don't go into debt for our power, or flood land and increase debt to give the USA power.
- Too much emphasis on "economic well being" — incompatible with objective.
- Are these uses listed in order of priority? If so drastic changes will have to be made — waste assimilation and power generation create the most havoc with our environment.

"No inter-basin transfers unless ecological impacts can be measured."

- Always put environmental benefits ahead of economic benefits.
- Place agriculture first on your list and place recreation last. Why have land and water policies and at the same time promote waste assimilation?
- This policy should read "... for domestic, municipal, agricultural, commercial, and industrial purposes as well as..."
- Good.
- Could certainly be interpreted as contradictory — ie optimum economic allocation vs retention and enhancement of habitat. Too broad a statement as is. Possibly identify priorities.
- Recreation, aesthetic enjoyment, fish and wildlife habitat should come first.
- Change "shall be" to "should be". Otherwise agree.
- Megaprojects slip by the strategy. (ie Rafferty-Alameda, Repap).

Policy 3.2

- Environmental criteria will be taken into account — weak.
- Nothing about the correction of past and continuing damages.
- Protect aquifers to avoid contamination.
- Human consumption should be the highest priority.
- Use and allocation and water management infrastructure should be integrated.
- What has the priority use — domestic should be the most important.
- Potable water should be priorized and put at the beginning of the statement.
- The size of the management unit should be defined — ie watershed, basin, etc.
- Yes, but with reservations — ie for present non viable or wasteful uses, statement too flexible, could permit the opposite of what is intended.
- Agree — stressing "existing".
- Never put economic requirements ahead of environmental integrity.
- Potable water should head this list.
- Unrealistic. Government is having a hard time in the north dealing with individual lakes and streams without getting into a basin approach. It may work in the south, but is impossible in the north.
- Generally agree with the basin planning process. I disagree with ranking of environmental integrity below existing commitments and economic requirements.
- This looks like a water transfer statement. Water transfer can be very dangerous.
- Change "shall be" to "should be". To be planned by those affected, not some lobby or minor group of activists.
- Environmental assessments impossible — need baseline data to know what impacts are.
- Environmental integrity should be first in list, economic requirements last.
- What are sustainable levels? Not detailed enough.
- Who is going to cut off users if existing use is more than commitments?
- How do you say what level is sustainable?

Policy 3.3

- First priority should be drinking water, then livestock and then irrigation.
- Good policy because new users will not impact on established users.
- Something should be added relating to aquifer recharge from surface sources.
- What is sustainable yield — it may be impossible to establish sustainable yield.
- Water for domestic and municipal use only.
- Sounds good.
- Fine.
- Agreed. If Policy 3.4 properly applied, most other concerns will self govern.
- Water quality in question.
- Commendable.
- Groundwater should rarely be used.
- Absolutely. Let's learn from others' errors — ie Ogalla.
- Do policies address lack of recharge?
- Are there discussions with other provinces regarding transboundary issues or groundwater?

Policy 3.4

- No priorities identified.
- Preferential coverage needed for trappers, fishermen and farmers to ensure livelihoods.
- Policy not sufficiently explanatory.
- What constitutes priority uses?
- Amend to read "Surface water and groundwater shall be..."
- Does this mean Hydro also?
- What are the priority uses?
- Who will identify the priorities?
- What about future priorities?
- Weak statement.
- The sooner the better.
- Too general, therefore dangerous — no priorities established.
- If only for Manitobans.
- Protection of private users.
- "Priority" — sounds dangerous. Better reversed — "Water uses of Manitobans shall be managed to ensure reliability".
- Commendable.
- Common sense thinking.
- No, if it means building dams.
- I have concern with priority of uses. Domestic, municipal and agricultural should have priority.
- Qualified agreement. Dams, flood controls, etc. should be built only as a last resort.

Policy 3.5

- "Interbasin transfers may be permitted" not "shall be".
- Interbasin transfers not acceptable because of environmental impacts.
- No interbasin transfers unless ecological impacts can be measured.
- Policy requires added restrictions, especially relating to expansion of water systems.
- Social factors — the effects on our neighbours should be added to this policy.
- Add the word "only" after "permitted".
- Does this policy address international or interprovincial transfers?
- Change "permitted" to "considered".
- Surface and groundwater should be included.
- What is the criteria for interbasin transfer?
- Are international and interprovincial transfers included?
- Nothing is said about transfers within a basin.
- Amend to read "Interbasin transfers of water shall be permitted when justified as beneficial to Manitobans".
- Who and what determines environmental and economic factors?
- Policy too broad.
- Policy looks like it was written to circumvent opposition to water transfers.
- No interbasin transfers of water should be allowed.

Use & Allocation cont'd

- This is a weak statement — it would still allow Hydro to carry on as is and destroy northern waterways.
- Need a definition of "relevant economic factors".
- Change "permitted" to "considered". Clarify whether policy includes interprovincial and international transfers. A political time bomb.
- No interbasin transfers — too harmful.
- No interbasin transfers. Nothing justifies that.
- Only when necessary.
- Questionable – look at this policy carefully.
- Water should flow in specific streams where most profitable to the public.
- Is this consistent with the Commission report? Should not be included here — no need in immediate future for interbasin transfers. Full examination should at least read "full environmental review process, including public hearings".
- Bad! You won't know full environmental repercussions. It can't be justified.
- "Interbasin transfers of water shall not be permitted unless justified..." — reflects more appropriate attitude. True interbasin transfers inevitably disastrous to ecosystems. Southern Manitoba basins are all part of Nelson Basin — therefore true interbasin transfers unlikely if Manitoba Hydro can be restrained.
- Who decides?
- Should not be permitted.
- This really scares me. Transfers to where?
- No way, never.
- Absolutely no interbasin transfers should be permitted. This is the most destructive of water diversions, especially when biota are mixed.
- No! Environmental factors should be No. 1 priority.
- Always put environmental benefits ahead of economic benefits.
- As long as it does not interfere with economic factors such as loss of family farms.
- "When justified" — this sets dangerous precedents.
- Very concerned about this — I would have to say no!
- Where demand exists.
- How to evaluate? "Interbasin transfers shall not be permitted without full examination of all relevant factors".
- There should be no interbasin transfers. We risk pollution, drought and higher costs to the whole province with Policy 3.5.
- Who will determine justified and by what process?
- This is a scary statement because there will always be negative results of any transfers. This statement should not be a policy.
- There must be well defined parameters laid down and followed. Far better to avoid interbasin transfers.
- This sounds like a water transfer statement. Water transfer can be very dangerous.
- Agreed — should have preference over agricultural irrigation.
- Change "shall be" to "should be". To be based on those directly involved and not some lobby groups.
- Should not be permitted.
- No! Not a wise idea! Manage use within a basin so that basin alone can meet needs.
- Define size of interbasin transfers.
- Don't create extra demands for the resource.
- Must add/include environmental assessment/impact evaluation.

'Aquifer recharge areas should be identified and protected'

Programs and Initiatives That You Suggested ...

- Input from local conservation district and RM in developing a coordinated water use plan.
- We should be trying to reverse what has been done in the past (shelterbelts, retaining water).
- Government should develop recreation projects in non-agricultural areas.
- Planning process — make sure local contact is made.
- Need policy or education on reducing consumption.
- More retention dams upstream.
- Dugouts for water retention.
- Need new conservation districts and money.
- Agricultural land should be maintained for agricultural purposes.
- Should have local board to cut off water in a drought.
- Suggest watershed approach to planning. Look at headwaters on a watershed basis.
- Aquifers should be protected to avoid contamination.
- Flowing wells should be capped.
- Control measures should be within reason.
- Controlled drainage.
- Study aquifers to determine yield so we can plan for future needs.
- MWSB — Not WRB — must be given dollars to study aquifers (more efficient through MWSB).
- Regulate aquifer withdrawals so that drawdown does not have negative impacts on neighbouring properties.
- Monitor aquifer withdrawals.
- Balance aquifer withdrawals with the aquifer recharge capacity.
- Base allocation on a monthly basis rather than annually.
- Projects should be designed properly so as to not cause salinity.
- Need more rational approach for small dams eg. smaller outlets.
- Existing legislation (Water Rights Act) needs monies and personnel to enforce.
- Need more stringent enforcement of existing legislation.
- Closer monitoring of groundwater levels.
- Use of latent heat from groundwater should be considered — monitoring and heat measurement needed.
- Proceed with large Pembina and Pembilier dams rather than small dams to provide flood protection as well as a dependable water supply.
- Small dams for water supply in low water years.
- Small retention dams (in-channel weirs) for a constant water supply.
- More retention dams on waterways.
- Increase irrigation supply for suitable soils.
- Local control of river and creek flow — possible deepening of streams.
- Better management of stream levels.
- A local water control committee must be looked at soon. Need to develop more drainage.
- We need to build more small retention dams to store water.
- Large water control structures on major rivers.
- Build small retention dams (many).
- Need small dams for water retention and stopping sediment deposition — could be hundreds in the area.
- Monitor aquifer withdrawals and make public.
- Question the validity of any transfers to the US.
- Should discuss possibility of Pembina Dam with US.
- Multiple purpose land and water scheme needed for Big Grass Marsh Area.
- RM of Louise would like headwater retention structures on Pembina River and tributaries.
- Construct Coulter Dam on Antler River and use as regulatory basin in conjunction with mid-Dakota development.
- Anti-Garrison claims not substantiated by unbiased professionals. Need more water here and in US — US water quality equal or better than Canadian.
- Should divert Pembina River water into Pelican Lake.
- Tri-Lakes important for recreation, fisheries. Could store water for release into Pembina River.
- Deregulate Lake Manitoba.
- Westlake pipeline a quick fix. Alternatives rejected too quickly in favour of least cost solution.
- Conservation should eliminate the need for a new Winnipeg aqueduct for another 100 years.
- Water could be piped from Clearwater Lake to The Pas.
- Retention dams along Brokenhead River, Hazel Creek — flood control, irrigation, recreation.
- Strategic plan needed for Boyne River — long term solution to benefit many sectors — ie Assiniboine-South Hespeler Study.
- Identify and protect aquifer recharge areas.
- Aquifer research needed.
- A progressive lowering of the water table is having a detrimental effect on wells in the RM of Hanover.
- Should build Pembina Dam — water for Morden and Winkler needed before present supplies run out.
- Would like retention dams on Red River, Buffalo River and Aux Marais River.
- Proceed with Pembina and Pembilier dams, not small dams — flood protection and water supply benefits.
- Carman water supply approaching limits. Assiniboine to Boyne Diversion or water supply pipeline will have to be considered to ensure security of supply and adequate growth.
- Should reevaluate benefits of Garrison Diversion.
- Churchill River Diversion — no such thing as multiple use for developments like that.
- Impossible to mitigate — costs of Churchill River Diversion unknown.

Draft Water Policy 4 Water Supply

OBJECTIVE

To develop the Province's water resources to ensure the availability of water supplies to meet priority needs and to support economic opportunities.

POLICY 4.1

Where demand for water is approaching the available supply, the first option shall be " demand management ".

POLICY 4.2

Irrigation, industrial or other development proposals involving direct or indirect water use shall consider impacts on existing and potential water uses as well as impacts on the environment.

POLICY 4.3

The cost of developing, operating, and maintaining the water resource infrastructure shall be apportioned among the beneficiaries in accordance with their share of benefits.

Overview

Reviews of the draft policies prompted calls for local input in decision making.

Questions were raised over demand management. A number of respondents wanted a clear definition of the term. Many felt that demand management - where demand for a resource is managed rather than the resource itself - should be implemented immediately, regardless of whether demand was approaching available supply.

As in Policy 3, participants strongly supported environmental impact assessments of proposed developments.

Water pricing was a concern. Some suggested that pricing be used to curb water demand while others maintained that pricing should be used only to recover public costs of supplying water.

General Comments

- Need more of a planned approach (work with RMs etc.).
- Consultation before legislation.
- Overuse of water a concern.
- Consider user pay concept.
- If we had proper management all other policies would fall into place.
- Need people like Regional Water Managers to resolve problems on the spot.
- Consider system as a whole, not just individual projects.
- Why should one person be able to use 1000 gallons while another only 100 gallons of water?
- Demand management is a necessity especially during times of drought.
- Local involvement in management decision.
- Re-examine water used in irrigation — too much is used up in some places.
- Farmers with access to water for irrigation should be able to use it at will.
- Carman Aquifer Diversion — typical example of no demand management.
- Local involvement in decisions is critical.
- Should have local input for demand management. Should water licensing be at the municipal level rather than at the provincial level?
- Where potential for irrigation exists, explore the economic opportunities for expansion (processing etc.).
- There is an increase in taxes as irrigation increases.
- Ensure that the long term benefits of irrigation exceed the cost.
- Decision to irrigate or not irrigate is based on economics — not on the impacts.
- Present licensing system seems to limit the amount of water that can be used for irrigation .
- Ensure that the policy is administered in an open and unbiased manner.
- How do you assess the impacts on development proposals involving direct or indirect water use – projects should not be developed if the impacts cannot be assessed.
- Educate on efficient irrigation methods — use could be reduced by 75 percent.
- High water charges could affect farmers ability to compete.
- Water is a public element and should be affordable to all.
- Those who benefit indirectly should also pay part of the cost.
- Hard to enforce.
- Costs could be disastrous for some rural communities.
- Urban water "cheap" as compared to rural costs.
- Who pays and how much?
- Commitment from government as to who pays and how much.
- Cost of operating should include domestic and municipal users rather than just industrial and irrigators.
- Spin off benefits of irrigation must be considered when apportioning costs — who will pay?
- Consider user pay concept.
- Is this policy being followed now?

"Water conservation should be a higher priority than the development of new supplies"

Suggested Water Policy 4

- Are subsidies being given to encourage businesses who then make a profit on cheap water at the expense of the rest of the populace?
- Those receiving benefits above the essential (domestic use) should pay the costs.
- Individuals should pay for water delivery, but not for the water itself.
- The public should pay to enhance private land because the public benefits from the savings in infrastructure — smaller floodways, culverts, flood damages.
- Costs should be up front, farmers should not have to recover costs through the marketplace.
- Demand management does not allow for growth of economy or population in Red River basin. Interbasin transfers may be needed.
- Water conservation should be a higher priority than the development of new supplies.
- Salinization may occur on land adjacent to water storage areas.
- Should have small dam licensing standards. Present standards are the same for all — make small dams prohibitively expensive.
- Policies appear directed at stabilizing flows — large dams and drainage. Need more emphasis on lifestyle change and conservation.
- Jurisdiction, cooperation are questions when considering infrastructure maintenance and operation.
- Should move towards small scale locally appropriate projects to improve water management — ie retention dams, backflood irrigation.
- Need an extensive infrastructure with priority use for agriculture.
- Regulation and licensing should continue under the Water Rights Act.
- Well drillers would like to help set proper legislation and guidelines.
- When Water Resources takes over drains, they should also take over drainage infrastructure including bridges.
- Municipalities could build bridges at much less cost than the province.
- No one taking responsibility for bridges and crossings adjacent to PR's, PTH's. Strategy needed.
- Concerned about determining priorities and apportioning costs.
- Water users should pay a reasonable rate for the water they use — resource will be more highly valued. Rates should increase with quantity used to encourage conservation.
- Need a policy for cost sharing for development, operation and maintenance of water resources infrastructure — especially bridges.
- User fees encourage conservation.
- Developers should take some responsibility for downstream flooding and water quality, groundwater pollution.
- Preservation of wildlife areas, swamps are for benefit of all — therefore expenses should be shared by all Manitobans.

Specific Comments on the Policies

Objective

- First priority should be for the survival of people and their specific lifestyles.
- Reword to read "to develop and manage...".
- Who will enforce regulations and how?
- Priorities — human consumption, industry, agricultural use.
- Policy should consider other economic opportunities such as recreation.
- Deals with surface water only?
- Should be area specific.
- What is covered under demand management (as opposed to increasing supply)?
- This objective is the most important of all.
- The phrase "support economic opportunities" implies more emphasis on economics than sustainable development.
- Recognize limitations of availability — set priorities especially for worst case scenario. Make sure public understands and agrees.
- Agree to point of putting farm operations out of business — what are priority needs?
- How can economic be explained when it is used so often?
- An environmental statement is needed here.
- Be careful not to put economic opportunities ahead of domestic use.
- Sounds okay.
- How "develop"? Hopefully not big dams. Whose "priority" — hopefully not USA. "Economic"— hopefully no selling our water.
- Certain percentage of water resources should remain untouched – don't commit all the water.
- If this includes more hydro development — forget it!

OBJECTIVE

To develop and manage the Province's water resources to ensure that water is available to meet priority needs and to support sustainable economic development and environmental quality.

POLICY 4.1

Demand management programs shall be implemented to conserve water and reduce the requirements for new water supply infrastructure.

POLICY 4.2

No Revisions

POLICY 4.3

No Revisions

POLICY 4.4

Pristine and potable water sources shall be afforded special protection.

Water Supply cont'd

- Whose priority needs? What are they?
- Disagree with economic focus.
- Yes, with care.
- Good.
- Priorities will have to be identified.
- Only within environmental constraints.
- Develop and conserve the provincial resources through the most efficient use.

Policy 4.1

- Clarify "demand management".
- Follow demand management long before demand approaches supply.
- Allowable water usage levels should be curtailed — disallow further reductions in supply.
- What is covered under demand "management" (as opposed to increasing supply)?
- What does "demand management" mean? Would charges escalate with increasing use? Pricing as a conservation tool works, but is poorly received by the public.
- Define "demand management" and give examples.
- What does "demand management" mean?
- Need to priorize demand management and decide who has first call on this resource.
- Why wait for supply shortage before instituting demand management — should be undertaken much sooner than policy suggests.
- The focus and emphasis should be on conservation.
- Good luck.
- Sounds reasonable, but give concrete example to provide public confidence.
- If this means conservation of water, good.
- Good, but don't wait until it is critical. There needs to be at least as much done for conservation at the consumer level as there has been at the resource management level. Conservation at the user level will have the greatest consequences on quantity management.
- Demand must be clarified as to priorities before management can be started.
- "Must be".
- Sounds okay.
- Agreed — taken to pertain to potable water supplies.
- Good!
- "Demand management" has many connotations — depends on who is demanding and for what purpose.
- Commendable.
- Is this a good idea?
- Demand management should be used before demand approaches supply — otherwise it's too late.
- What is "demand management"? With global warming trends we must learn to get by with less water.
- Necessary.
- Agreed. We must reduce water use by water conservation.
- Good.
- What does this mean? Needs rewording — simple terms.
- Change "shall be" to "should be". Agree — first user should have priority.
- Don't allow supplies to deteriorate to satisfy a created demand.
- Object to "demand management" — confusion in definition.

Policy 4.2

- Cannot determine all environmental impacts. New impacts must be dealt with directly and immediately.
- The words "shall consider" are not strong enough and imply that assessment of impacts may or may not be done.
- Agree, but need priorities in a worst scenario situation.
- Full environmental assessments are very important.
- Considering impacts fine, but must be able to act on and stop or prevent negative impacts.
- Environment should be the first consideration. All impact studies should be done by independent consultants.
- What about full environmental assessment? The new environment legislation.
- Demand must be clarified as to priorities before management can be started.
- And pay for water use. Domestic users should not pay.
- Sounds good.
- Irrigation shall be used, all water supplies shall be planned.
- How about environmental licences?
- What about existing developments? "Consider" — pretty weak. Force them to prove and state the extent of impacts, and have bond from companies. Collect bonds in a fund for independent study, establishing criteria.
- Impacts on the environment should have top priority.
- Okay.
- Necessary.
- Also consider benefits as opposed to costs.
- I would expect that there would be regulations to make this mandatory.
- Change "shall be" to "should be". Otherwise agree.

Policy 4.3

- Development costs should not be paid for by non beneficiaries.
- Nothing being done to correct costs being incurred by communities and individual people.
- Define beneficiaries — multi-national industry, farmers, urban dwellers, etc.?
- Direct or indirect — where do you draw the line?
- How are beneficiaries defined — ie who pays for wildlife restoration?
- Policy needs clarification – what activities and uses does this policy apply to?
- Sounds reasonable, but by itself is dangerous — who are beneficiaries? Some indirect users may not be identifiable — what formula for apportionment — too much left to political whim.
- Whoever benefits most shall pay — user pay.
- Caution needed to avoid having to equate aesthetics and environmental quality to dollars and cents.
- All must be the responsibility of the benefactor. (Beneficiary)
- Absolutely.
- Should exclude conventional agricultural users and those who store and manage their own supplies.
- Costs shared with the beneficiaries. The government has a part to play.
- The government shall be responsible for allocating funds.
- Agreed in principle, will be difficult to apportion direct and indirect benefits.
- Water pricing?
- Why just beneficiaries pay? Others who cause problems should be made to pay a lot. Rates should increase with consumption. Provide education for conservation, incentives for recycling, research.
- What is the apportioning process, who makes decisions, is there an appeal process?

"Educate people about the need for demand management and what it means"

How will the method achieve fairness for all parties/interests?

- Some beneficiaries (wildlife, plants) may have trouble paying – should not lose consideration as a result.
- No. This is an open policy to be controlled by a few.
- Difficulty foreseen in determining the benefits to different segments of population. Land and water so essential to welfare of all Manitobans. Many people may not want to contribute to cost of conserving our resources.
- Reasonable objective.
- Do you mean beneficiaries? If so, I agree — they should also pay to repair environmental damages.
- Future benefits should be considered.
- Water is a necessary item for all mankind, therefore it cannot be subject to taxes or user fees. Once again, how stupid can you get?
- Agreed — the cost be shared with province and beneficiaries.
- Good.
- Change "shall be" to "should be". Otherwise agree.
- Yes.
- Towns would have to cover the cost of increasing water supplies.
- Need to clarify who is the beneficiary (ie for flooding and drainage).

Programs and Initiatives That You Suggested ...

- Would like to see more funding available for rural water infrastructure.
- Storage/retention reservoirs to augment water supply.
- Development of more dams for water supply.
- Infrastructures on the tributaries to the rivers such as the Pembina.
- Leave the beaver dams.
- Closer monitoring of water use.
- Low use appliances encouraged through building codes.
- Need small water retention dams to control flooding (especially along the Riding Mountains).
- Water coming out of federal lands (ie Riding Mountain Park) should be included in the demand management process.
- Determine dependable yields of aquifers and how they recharge.
- Increased cost is the simplest method to curbing excess water use.
- Increase price of water in towns and villages to reduce consumption.
- Educate people about the need for demand management and what it means.
- Monitor large water intensive industries to ensure they are not wasting water.
- Incentives ($) to encourage people to participate in water management.
- More retention dams on rivers and streams.
- Need close monitoring.
- Basin management boards could be used for assessing impacts.
- Need water retention dams instead of drainage ditches.
- Need physical work done (ie reseeding) as well as education.
- Incentives because of heritage value are also needed.
- Infrastructure costs should be borne by all three levels of government.
- Retain and slow runoff through a series of holding ponds.
- Use marginal land as holding reservoirs.
- Carman water demand is approaching supply.
- Why no environmental impact study of Rafferty-Alameda Dams?
- Cottage owners along Manigotagan River would like to have a weir constructed to improve lake levels (Long Lake).
- Boyne River Project/Treherne Dam should be considered in place of the Carman Diversion (headwater control).

Draft Water Policy 5 Flooding

Overview

The public agreed with the need to alleviate human suffering from flooding and minimizing the economic costs of flood damages. But compensation should not be paid to those who have built in flood-prone areas and further development should not be allowed in flood prone areas.

In addition land use changes, wetlands, and headwater retention were seen as ways to reduce flood damages.

It was suggested that flooding as a result of hydroelectric projects be included under this policy area.

OBJECTIVE

To alleviate human suffering and minimize the economic costs of damages caused by flooding.

Security and protection shall be provided to Manitobans by:

POLICY 5.1

Ensuring that development on land subject to flooding, or hazards such as water erosion, bank instability, ice damage, landslides, or subsidence shall occur under a planning framework that takes into account people's economic requirements, the limitation of public costs and liabilities, and environme.. al impact.

POLICY 5.2

Fostering economically viable measures to alleviate personal and property damage to existing development in flood prone areas.

General Comments

- Policy should be in place to address the spring runoff as it is today. Trees have been removed. (They tend to slow melting.) Ditches have been dug to speed up the runoff and large culverts have been installed to facilitate faster runoff. All of this must be reversed or counteracted in some way. We need to plant trees to slow snow melt and we need to plan drainage to slow the runoff. We need to build holding structures to retain water rather than send it out to the sea in a hurry, causing massive erosion and damage enroute. Erosion must be prevented to maintain a strong and healthy farm economy.
- Land use and zoning must identify flood prone areas and then indicate to those who wish to use or develop these areas that the risk of flooding will be theirs without compensation.
- If this means building large dams, remember that these projects actually displace many people and can cause human suffering.
- Flooding has always been with us. To maintain some sound soil conservation practices, leave trees, allow no construction in flood plains.
- The policy of dams upstream at source of water should be investigated.
- Construction of dykes and controls before flooding occurs.
- Get urban sprawl out of desirable agricultural land.
- I am concerned that large scale dams are going to cause more environmental damage to the area than what the protection of people in flood prone areas is worth. Specifically, I am concerned about Cowan dams on Duck River in Duck Mountains. What about fact that dam construction opens up areas that will no longer be considered wilderness? What are maintenance costs after dam is built? What about costs if dams over time deteriorate and no longer hold water back?
- The cost effective flood control projects are probably already in place.
- Compensation has never been paid to people who loose a crop or cannot plant one due to flooding thereby losing their income, whereas people in the towns and cities are compensated for lost or damaged furniture in their basement even though they do not lose their income which is not fair.
- Plan the waterways – have a continued supply of water.
- Planning must be initiated to reflect construction on river banks and lake shores below predetermined levels, even if an applicant desires to "sign off" future damage claims.
- Control of spring runoff – small culverts to gradually larger capacity to control runoff before it gets to river.
- Flooding can be controlled by drainage in an orderly manner.
- Stop allowing stupid humans from developing on flood prone land. Government

' No compensation for people building in a flood-prone area '

Suggested Water Policy 5

should stop being a soft touch for greedy loud mouth supposed victims.
- Encourage buffers along creeks and rivers
- slow down prairie pothole destruction to increase water retention.
- Should be primarily through good land use practices.
- Flooding can be controlled by draining in an orderly manner – including controls.
- Flooding and drainage policies are interrelated.
- A little more planning would resolve remaining problems.
- Flooding tends to originate in non-productive agricultural land and then floods productive land downstream (ie Riding Mountains).
- Consider retaining water at the source (headwater storage).
- Consider incentives for retaining tree cover.
- Change and clarify tax assessments to conserve tree cover – current structure doesn't show breakdown of how each quarter section is assessed.
- Want to see compensation for crop losses due to poor or inadequate drainage.
- Highways should consider their ditches as drains and maintain them as such.
- Restrict development in flood prone areas.
- Flooding is a problem but some owners should have to pay for damages
- This should be up to a development board.
- Flooding often result of upstream mismanagement.
- This should have been done long ago.
- In such areas maybe the people should be moved and not spend huge amounts of money to "stabilize" water problems.
- Planting grasses etc. will stop erosion. Trees should be planted. Could be supplied by government means.
- Takes into account "people's economic requirement". If a developer with big bucks wants to build on these lands will you ensure no liability to public would incur? Would you stop them based on environmental concerns and thus ignore economic factors, or will you cave in to the money pressures?
- Start a program to remove buildings from flood prone areas — ie from flood plains where flooding occurs 1 in 5 years.
- Environmental impact studies and initiatives done on agricultural land in regard to excessive bush and tree clearing – channeling of streams and rivers – siltation of stream and river beds preventing past flows of water.
- This is a laugh in view of the fact that Manitoba Hydro, a Crown Corp., actively caused the flooding of native communities in Manitoba's north. Hydro's active program ensures that the flooding will continue.
- Peguis and north of Fisher Branch should be done right away.
- Any person stupid enough to build in a flood prone area needs to be left to carry the burden of his mistake. Complete compensation should be given to anyone flooded by unnatural causes such as industrial or government interference with nature.
- Nothing left to say.
- Why permit building on flood plains.
- If one chooses to develop in a floodprone area, the government should not pay flood damage in the event of flooding (buyer beware). An excellent example of this is the waste of taxpayers' money for Turnbull Drive residents of South Winnipeg.
- If people choose to build in flood areas that's their problem.
- Compensation should not be paid to people who disregard approved plans established by local group. Must have local guidelines.
- There should be something there – you should not have to pay out damages — ie St. Norbert, Pelican Lake.
- Controls for converting class 1 and 2 lands to non-agricultural uses.
- Enforce this policy – things have a way of "popping up" on flood prone lands.
- Leased crown land on slopes should be legislated as to the number of cattle on it – heavy use causes increased runoff.
- Restrict development on flood prone land – no compensation if advice ignored.

OBJECTIVE

No Revisions

POLICY 5.1

Development on land subject to flooding or other water related hazards shall occur only under planning guidelines which prevent human suffering and property damage, limit public costs and liabilities, and address environmental impacts.

POLICY 5.2

Economically viable measures to alleviate personal and property damage to existing development in flood prone areas shall be fostered.

POLICY 5.3

The negative impacts of changes to water level and flow regimes caused by hydro development projects shall be mitigated to the extent feasible.

Flooding cont'd

- Need compliance.
- Proper compensation and no hassle legislation dealing with farmers is imperative.
- This is already being enforced under the Municipal Planning Act.
- There should be a law to prevent people from building on a flood plain.
- Priority be given to land subject to flooding by soil class.
- Use zoning as a preventive measure to curb development in flood prone areas – make sure it is in place before development can take place.
- Maintain buffer strips, sound forest extraction policies.
- Turtle River Conservation District does not plan to provide flood protection to people building in flood prone areas.
- Flooding of residential sites within Cooks Creek Conservation District caused by spring runoff.
- Northern requirements are different – this needs to be considered.
- Encourage conservation of soil, plants, trees.
- Be careful not to give people compensation for developing in known high flood risk areas.
- Plan present waterways so that water is controlled.
- Why are they there in the first place?
- Personal property should be discouraged from being constructed in flood prone areas.
- Shall be paid for by those who benefit directly.
- Provide assistance to move only.
- There should be enforcing.
- If you do you do at your own risk – no compensation.
- Proper compensation and no hassle legislation dealing with farmers is imperative.
- Take responsibility if you go against advice (no compensation).
- No compensation for people building in flood prone areas.
- Keep snowmobiles out of ditches to prevent them packing and restricting.
- Headwater retention dams, grassed water ways, bank protection.
- Careful consideration of costs/benefits required before flood protection measures are taken.
- Waterway openings for floods are inadequate.
- Red River Floodway not good for people south of Winnipeg.
- Flood problems along the Brokenhead River.
- Efforts needed to control spring runoff.
- Policy must be dealt with on an equal basis covering all northern peoples.

Specific Comments on the Policies

Objective

- Good philosophy, but unfortunately this Province does not practice what it preaches with its programs currently in place (Man. Disaster Board). Province must acknowledge its liability in allowing or creating works which predispose to or cause flooding; otherwise, policy lacks credibility.
- While not ignoring the environmental benefits of limited flooding (often essential to riparian ecosystems).
- Commendable.
- Yes – by floodway but not dams.
- When economic and reasonable to do so.
- Within reason.
- Add the words "natural and man-made flooding" to the objective to take into account flooding caused by Hydro development – damages caused by Hydro flooding are still unresolved in the north.
- Should be worded similar to the Federal–Provincial Flood Damage Reduction Agreement Objective.
- The Objective and Policy 5.1 – "to alleviate human suffering and provide security and protection" are good. However, there needs to be acknowledgement that we should plan our activities and developments to a large extent recognizing the natural hydrodynamics. It isn't necessarily in our economic or ecological interest to interfere with or prevent all flooding. Flood prevention should be basin-based, taking into account upstream development and downstream effects.

Policy 5.1

- Do not allow development on land subject to flooding.
- It is not economic for people to build on land subject to flooding. Should not be supported by public funds.
- Do not build on land subject to flooding – no expense will be incurred.
- Large scale industry or livestock operations should not be allowed to establish in flood prone or water short areas.
- What about environmental integrity, the most important use?
- Land of this nature should not be developed.
- Strongly agree.
- This has to be maintained. Policy should include where people have taken bank from its original condition – they must repair and replace at their cost.
- Too ambiguous.
- Restrict and/or make liability free any new development in flood prone areas rather than control water flows or compensation.
- Extensive development should not be permitted on flood prone lands. Where development has occurred in areas of frequent flooding it should be relocated where possible.
- Or that it does not occur except where avoidable.
- These points should be ranked (economic requirements, public costs and liabilities, environmental impact).
- A good policy.
- You forgot a very important damage to users, that is mercury methylation which occurs in many new reservoirs. (ie South Indian Lake) – Environmental Impacts!
- Should be no development in flood plains.
- Only when economical.
- Don't allow new residential projects in flood prone areas. Don't pay compensation to those that do.

' Development should be restricted in flood-prone areas '

- There should be no development if and where there are adverse effects.
- I would agree. I think the land subject to these hazards should be zoned as poor and have no assistance for damage.
- Agree; change wording from "shall occur under a planning framework" to "should occur under a planning framework". Development should not occur at all.
- Include something about wildlife – beaver dams that cause flooding.
- Define "limitation of public cost".
- Environmental criteria will be taken into account – weak.
- It would be more efficient to prohibit development than to protect structures from flooding.

Policy 5.2

- Instead, prevent people from building on flood plains.
- Land of this nature should not be developed.
- Strongly agree.
- Keep people and property out of flood prone areas. Return natural growth to flood area to minimize damage.
- Also good philosophy but contrary to current government policy
- Such as encouraging restoration of wetlands to act as sponges.
- Commendable.
- This must be done.
- Allow no development in flood prone zones.
- Only in cases where owners were not aware of the problems.
- Do not permit building development etc. in flood prone areas.
- Support.
- Maybe Policy 5.1 and Policy 5.2 should be flipped around.
- The words "careful consideration" should be added to the policy.
- Define "flood prone areas".
- Fostering viable measures to alleviate damage is good.

Programs and Initiatives That You Suggested ...

- Need buffer zones around Riding Mountain National Park to reduce the impacts of downstream flooding and erosion.
- Hydro reserves – a lot of them can be lifted.
- Laurie River trappers want Hydro to inform them about any releases.
- Beavers and mink are being drowned in traps when Hydro releases water without warning trappers — two days notice should be sufficient.
- Constructing a number of dams upstream on creeks and rivers and lakes will help flooding conditions downstream at Neche N.D., Emerson and Winnipeg.
- Should encourage a water retention on the escarpment (costs borne by the province).
- Reduce flooding in the Swan River Valley.
- Development should be restricted in flood prone areas – address concerns during subdivision process. Dyke around existing sites and provide flood risk maps.
- Start a program to remove buildings from flood prone areas, ie from flood plains where flooding occurs 1 in 5 years.
- Land purchase policy should be established to provide public ownership of marginal lands for water storage areas.
- Action needed on Fisher River flooding.
- Promote flood control and watershed planning through conservation districts, conservation groups and local governments. Initiate demonstration projects.

Draft Water Policy 6 Drainage

Overview

Participants were generally supportive of the draft drainage policies but expressed concern that the policies addressed only the Red River Valley. They wanted a third policy to deal with controlled drainage.

Concern was expressed that the drainage policies focussed solely on agriculture. It was suggested that the objective of the drainage policies be modified to reflect the needs of all Manitobans.

OBJECTIVE

To enhance the economic stability of Manitoba's agricultural community.

The consensus was that maintenance, reconstruction, and stabilization of existing drainage systems should definitely take priority over expansion of drainage systems into marginal fringe areas. Some people believed that drainage of marginal lands should not even be considered.

General Comments

- The present drainage licensing system is not working.
- There is too much drainage of sloughs and potholes.
- Storage and use of precipitation for agriculture and other production should be improved by promoting suitable retention structures both on-farm and off-farm and by altering existing legislation and government programs so that they commonly encourage soil and water conservation.
- Drainage starting at the field level should be restricted or controlled wherever feasible.
- I don't think we should just think in terms of the Red River Valley when we think about economic importance of drainage There are other pockets of land in Manitoba that can benefit greatly from drainage too.
- There also seems to be a lot of talk now, after a few dry years, of limiting people's ability to drain. I think we will see wet spells again, and the thinking will change around pretty fast.
- A lot of care should be taken to secure water supplies before large drainage projects are undertaken.
- All drainage should be strictly controlled, with more authority given to municipal government, with set penalties for offenders.
- Way too much drainage on the municipal level without study.
- Educate people that planned drainage is beneficial.
- Manitoba's agricultural community has been undermined by the greed of its own industry through excessive drainage — must be a priority.
- Very little drainage should be done. In most cases it is more a hindrance than a help.
- Agriculture must be improved and enhanced for present and future generations.
- Prime concern should be directed towards maintaining soil receptivity to precipitation.
- Better programming and organization for drainage and roadway construction.
- Need to address water management, not just drainage.
- Our problems could be solved by dealing with excess water (ie headwater storage).
- Look at some form of on-farm drain regulation - systematic approach.
- Subsidy programs designed for broken acres.
- Mechanism for enforcing is as important as the policies themselves.
- Must be put forth in a balanced approach and balanced system.
- Controlled drainage — small retention dams to slow and hold back runoff.
- Drainage would not be such a high priority if the returns on investment were not so small.
- Ensure equity to all drainage projects with local input.
- Too much drainage may affect our environment.
- Some conservation districts concentrate too much on drainage.
- Drainage programs can be useful in combating soil salinity.
- On one side of the road a farmer is draining and on the other side Ducks Unlimited is putting a water storage in place.
- In pothole country drains should be plugged and potholes should be put back.
- I appreciate the link established with drainage planning; soil and water resources are so closely linked as to be almost impossible to separate. I believe we need to design any drainage system to suit its particular location, as the requirements and the possibilities are so variable. In most cases, I believe we need to be able to control drainage so in times of drought we're not draining the land in a hurry, and throwing away what little water we have.
- Drainage maybe should get water off by June not May.

POLICY 6.1

Where runoff from excess rainfall is removed from agricultural land, it shall be based on the capability of the soil to sustain agriculture and on technical, economic, and environmental criteria, taking into account the impact on the farm unit and the surrounding community.

POLICY 6.2

Maintenance and reconstruction of drainage systems shall be of higher priority than the expansion into marginal lands or fringe areas.

' Have controlled drainage upstream — water causes downstream problems '

Suggested Water Policy 6

- Must change attitude (ie this year there is no water in the Whitemud Basin).
- Farmland drainage must be controlled and water stored locally for in-season use as drought conditions and alternative uses dictate.
- Cost/benefit analyses are increasingly critical of drainage projects, although it is still recognized that much of Manitoba's agricultural community needs an efficient drainage network to survive. Within this network, however, we are beginning to install control structures, so the land will be drained only when drainage is needed. In many cases, spring snowmelt water should be retained to saturate the ground, and thus lead to increased productivity and groundwater recharge. These controls are left open in the summer to provide effective drainage after heavy rainfall.
- Drainage systems continue to erode valuable farmland and to impact on valuable fish and wildlife resources.
- Drainage improvements, design standards, maintenance or reconstruction vs new construction.
- Drain design standard should reflect the land use and soil capability.
- Wetlands are a very important part of our environment and provide a natural water retention system — they should not be drained.
- All efforts must be made to use techniques to increase over-used soil's ability to retain water.
- Consider public comments from small scale water retention works done by landowners. Don't be too anxious to drain.
- Controlled drainage with a percentage of retention required.
- Plus irrigation. Tile drainage should be monitored re: chemicals and fertilizers.
- Individuals who want to drain sloughs etc. should put in gates or dams. This would allow for extension of the drainage for up to 2 - 3 weeks vs 2 - 3 days.
- There is no point in draining water into a natural stream when it is already overloaded and no one accepts the responsibility for a natural stream.
- Flash floods from severe thunderstorms etc. are very hard to predict and therefore hard to drain.
- There must be a much more rigorous scrutiny of drainage programs. Past programs have been often only short term solutions, and, in some cases, have caused greater problems.
- There is no excess rainfall, merely inadequate wetland storage.
- Wetland retention and restoration will sustain runoff to a large extent. Let's reverse the 100,000 wetland drainages occurring per year to just the opposite.
- Agreed, but we must also take into account the farmer's ability to make a living.
- Keep in mind the on-going destruction of wildlife habitat such as the drainage of prairie potholes.
- This will cause problems between farmers themselves and also with other uses.
- Good idea. Does this mean marginal lands may be left undrained and natural? This should be reflected in tax incentives.
- Runoff should be discouraged.
- Also take into account that groundwater recharge in some areas depends on a long term source of moisture at the surface. Drainage can cause serious reductions in water available to recharge aquifers.
- Drainage should not be based on the productive capability of the soil but on economic benefits to the community — consider impacts on farmers making a living off of class 3 and 4 lands.
- When Water Resources takes over drains this should include bridges.
- Government agencies should set examples of good practices.
- Have the ability to close drains if needed.
- Must have more consultation.
- Water should be retained even on good agricultural land — aids in aquifer recharge where soils permit.
- Beaver dams, especially in Riding Mountain Park aggravate flooding by plugging natural drains.
- More "teeth" in the Water Rights Act is required.
- More local input into drainage projects — do not want Winnipeg to tell us what to do.
- To enforce this policy properly will require more staff.
- If farmers hold back water on their land will they be compensated for losses or damages?
- Don't write off marginal lands at the expense of good lands.
- Should consider factors other than agricultural value when draining (ie loss of wildlife habitat).
- Consider the effect of drainage on the potential of wildlife development.
- Disagrees with WRB policy not to take over 3rd order drains which are below standard.
- Drainage can be detrimental to groundwater discharge.
- Sloughs are best water purification system — should reconsider drainage.
- Better drainage studies are needed.
- Dredging creeks flowing into Lake Winnipeg has detrimental impact on walleye spawning grounds.
- Overzealous drainage proponents in government should be educated or eliminated.
- Drainage systems must be designed to control velocities to limit erosion.
- Flooding and erosion along Brokenhead River will be increased as upstream marshes are drained.
- Cultivation of marginal land not economically or ecologically sound — should be discouraged.

OBJECTIVE

To enhance the economic viability of Manitoba's agricultural community through the provision of comprehensively planned drainage infrastructure.

POLICY 6.1

Drainage works shall be designed to remove excess rainfall from cropland during the growing season.

POLICY 6.2

The standard of drainage shall be based on the production capability of the soil and on technical, economic and environmental criteria, recognizing watershed, community and farm impacts. (Formerly Draft Water Policy 6.1) (Same as Soil Policy 2.3)

POLICY 6.3

Maintenance of existing drainage systems shall be of higher priority than reconstruction. (Formerly Draft Water Policy 6.2)

POLICY 6.4

Reconstruction of drainage systems to improve productivity and to reduce erosion and deposition shall be given a higher priority than expansion into new agricultural lands.

POLICY 6.5

Drainage projects shall be planned and executed so that projects in one area do not adversely affect another area.

POLICY 6.6

The protection of wetlands shall be a consideration in planning and developing drainage projects.

POLICY 6.7

Water retention, control, and timing of runoff shall be promoted as part of watershed management. (Same as Water Policy 2.4)

Drainage cont'd

- Agricultural land drainage is important.
- The implications for removing excess rainfall upon the entire river basin should be considered as well as for the receiving delta/estuary/coastal waters. For example, drainage of alluvial fan areas off the Riding Mountain escarpment has moved the alluvial soil through erosion into Dauphin Lake. The result is a decrease by one-third of the depth of Dauphin Lake.
- Enforcement of regulations pertaining to drainage of private land onto other's property is urgently needed. We cannot afford to pass the buck any further.
- Good soil and water conservation is everyone's job.
- Motherhood — but remember that technology may render now marginal lands of greater value in future, so don't tie our hands.
- Maybe the ditches full of silt this past year sends a message — less rapid drainage needed.
- Too many systems have been built in the wrong place.
- If the land retained (water) better these would not be as necessary as often.
- Some drainage systems may be returned to original retention areas.
- Make sure the drains and runs are maintained.
- About time.
- Is marginal land that important to agriculture? What about alternative uses for such land?
- Particularly maintenance.
- Show people the benefit of maintaining good drainage.
- If drainage from marginal or fringe areas is restricted, existing drainage may also be relieved of the drainage pressures.
- Review of criteria of current drainage subsidy programs? Environmental licences required for all new drainage systems?
- Council (RM of Rhineland) supports this policy fully. The policy should however be flexible and should consider foreign water coming into a municipality.
- That's fine but many areas in Western Manitoba should be returned to the marginal areas they once were and the problems of floods would be eliminated.
- Aquatic birds (and other wildlife) should be given a high priority.
- In most cases drainage in this area is not necessary.
- They should also include ways to maintain some sort of "natural" characteristics.
- I agree. Washow Bay — millions of dollars spent on marginal land. If and when the land is farmed these farmers can only harvest 1 year in 5 due to frost, wet, etc. Habitat is destroyed for a few bushels of barley and many crop insurance claims. Very questionable.
- You cry and cry about the shortage of water, yet you keep promoting drainage. For supposedly smart people, you sure don't make much sense.
- Before new drains are constructed existing drainage systems should be upgraded to handle the new flows.
- Redesign ditches for easier maintenance.
- Ensure equity across the province and not only allocate money to high capability areas.
- More money should be spent on maintenance of old drains rather than new construction.
- This should be done on a benefit/cost ratio.
- Does politician have fortitude to enforce policy — "political will"?
- Maintenance must involve control of headwater areas.
- Controlled drainage — holding ponds, control dams, dykes.
- Society as a whole should have a responsibility to support the farmer (compensation?).
- The key is that the farming community is not going to do anything without compensation.
- Maintain existing drains in flood prone areas.
- Better communication with local landowners.
- Have controlled drainage — upstream water causes downstream problems.
- Ensure that government agencies and departments don't have conflicting activities - more cooperation needed.
- Place a higher priority on retaining marginal lands for non-agricultural uses (ie wildlife, forestry)
- If all Manitobans benefit, all should pay the associated costs.
- Who classifies whether land is for agriculture or other uses (ie wildlife)? Should be government with local input.
- Often best land for agriculture is also best land for other uses.
- Would farmers be limited for use of Crown lands for pastures?
- Marginal lands should not be opened up.
- Marginal lands should have a much lower priority for drainage.
- Highway ditches to be considered as drains and treated as such.
- Long range plans for municipal drainage — also for RMs.
- Clean up existing drains.
- Clean out and stabilize the banks of existing drains.
- Controlled drainage — headwater retention reservoirs.
- The benefits and costs of drainage should be carefully weighed before construction.
- Marginal lands should not be drained — recognize the value of wetlands.
- Who will assess the impacts of drainage on the environment — who will enforce?
- Whitemud Conservation District responsible for over 1000 miles of drain - reconstruction should have higher priority than new construction.
- Polder III expands into marginal lands/fringe area.
- Polder III benefits many — agriculture, natives. Need more agricultural production in light of drought — leads to stability.
- Drainage of marginal lands not good management - retain for water retention, wildlife, fisheries. Discourage residential development of these areas.
- The maintenance, reconstruction and new construction of drainage systems must apply state of the art expertise to reduce maintenance costs to an acceptable long term basis and to reduce the impact of drainage systems in the environment.
- Alonsa Conservation District is installing control structures to drain land when most appropriate. Retain spring water for groundwater recharge, utilize full capacity of drainage system in the summer.
- This area (Melita) has a severe shortage of rainfall.
- Policy 6.1 not as important as Policy 6.2.
- Washow Bay is a fringe area — therefore a waste of money — money could have been better spent developing better lands.

Specific Comments on the Policies

Objective

- In conjunction with practical, long term goals and policies to achieve.
- Without further damaging the environment.
- Commendable.
- Within reason. Existing areas only. No dyking and draining of marshland.
- Rewrite policy to read: "To maximize the economic stability of all sectors of Manitoba's agricultural community".
- Should use the word "enhance" or "maximize"?
- Reword to read: "To enhance the economic stability of Manitoba's agricultural community and the Manitoba people, in general".
- The objective singles out only the economic stability of the agricultural community to be enhanced. There is, of course, a case for an agricultural drainage policy, but it should not be implied that all drainage belongs in the agricultural sector.

Policy 6.1

- This sounds very costly.
- No one shall change the topography of land to increase the runoff of water without due consultation as to the effects on downstream residents.
- Agree; change wording from "it shall be based on the capability of the soil" to "it should be based on the capability of the soil".
- Define the "ability of the soil to sustain agriculture".
- Controlled drainage is the key.
- Add spring runoff to policy.
- Rewrite to read: "Where runoff from excess rainfall and irrigation..."
- Replace "surrounding community" with "on watershed".
- Environmental criteria will be taken into account – weak.

'Government incentives to farmers to retain wetlands'

- Benefit/cost analyses increasingly critical of drainage projects, but must recognize that agricultural community needs an efficient drainage network.

Policy 6.2

- Yes, past drainage projects have not had full enough study or there would have been a different approach.
- Marginal land should be left alone.
- Hooray for this one!
- "Maintenance and reconstruction of drainage or distribution systems shall be of higher priority, etc.".
- Drainage of marginal lands should not even be considered.
- Agreed regarding further drainage expansion – if anything a reduction of existing drainage systems should be considered.
- Commendable.
- Ambivalent re: this statement as some marginal lands may need more than present systems.
- Makes good sense.
- Definitely.
- "Maintenance and reconstruction of drainage systems shall be of higher priority than the expansion into lower soil capability or fringe areas".
- Excellent.
- Support strongly – policy should be flexible and consider foreign waters coming into municipality.
- Define "fringe areas".
- How are marginal lands identified? Define "marginal".
- Excellent policy – high priority area.
- Policy 6.2 more important than Policy 6.1.
- Reword to read: "Maintenance and reconstruction of control drainage...".
- Amend to read: "Maintenance and redesign...".
- Add policy 6.3: "Encourage a system of regulatory decisions to aid groundwater recharge of agricultural soils to minimize siltation effects of runoff".
- Add a policy on education for water, including farmers' input in education program.
- Define "marginal land" – is this the same as "fragile lands"?
- Reword to read: "Maintenance, reconstruction and stabilization..."
- "Marginal lands" – require a better term.
- It is probably unwise to use the terms "marginal land or fringe areas", especially under a general agricultural objective, until other sectors have been addressed.
- Maintenance and reconstruction projects assume a higher priority than new drain construction.

Programs and Initiatives That You Suggested ...

- Encourage proper agricultural practices so that soil retains moisture, not increase runoff.
- Need central planning system by RMs – integrated planning.
- Need economic incentives to retain wetlands.
- Change assessment of marginal lands.
- Alternatives to crossing replacements to be investigated such as abandonment, low level crossings or alternate access.
- Downsize crossings to slow the runoff of water.
- Prepare a strategy outlining the responsibility for crossing replacements adjacent to PRs and PTHs in conservation districts.
- Repeal present drainage regulations, replace with practical, common sense ones after consultation with municipalities and farmers. Honey is better than vinegar.
- Put a stop to the practice of bulldozing out the shelterbelts to accommodate irrigation.
- Store excess runoff as close as possible to agricultural land from which it came.
- Recreate potholes for runoffs or retention ponds if you please. Stop taxing unused land. Apartment dwellers should pay taxes comparable to home owners. Tax according to income. Corporations should not go tax free. Taxes are income to government.
- Programs by wildlife in cooperation with farmer could reduce drainage needs.
- Excess runoff is wasteful and destructive and should be prevented by plugging all past drainage systems on sloughs and potholes and draining them in a gradual slow manner. At the same time this excess water will recharge groundwater levels.
- Incentives to retain wetlands.
- Check dams may be useful to retain a percentage of spring runoff and summer rain to aid in water retention.
- Use of tax incentives to foster water retention.
- More control by RMs – often Natural Resources staff are unaware of local problems.
- Natural drainage systems should be developed.
- On-farm drainage to a catch basin where possible.
- If the permit system is going to work, have the permit issued by the municipality and then have it go to the Regional Water Manager for approval.
- More emphasis on reforestation and grassing of slopes (ie Riding Mountain).
- Monitoring for water quality of irrigation tile flows.
- Drainage should be within the framework of a conservation district.
- Drainage priorities should be stipulated through long range planning.
- Councils should be responsible for presentation of drainage proposals to government agencies.
- Should stop slough drainage, maybe reflood some areas.
- Need Fisher River dredged or diversion channel cut.
- Coordinator needed between agencies to design integrated and appropriate drainage systems.
- The Department of Highways take immediate steps to stop all drainage into highway ditches without a permit – at least in southwest Manitoba.
- Stop the damn nonsense of drainage at The Pas and Washow Bay and other such areas.
- Class 1, 2 & 3 drainage should continue.
- Each drainage system should be reassessed to see if it is still economical, viable to redrain.
- Drainage systems should be re-evaluated in the light of the need to have greater input of precipitation to soil and groundwater.
- Limit duplication of government services (ie Planning District, Conservation District, etc).
- Where class 1,2 & 3 agricultural lands occur, drainage systems should be developed and improved.
- Slow down development of marginal crown lands – government can take action on this issue.
- Drainage in new subdivisions to be engineered so as not to flood neighbouring farmland.
- Government incentives to farmers to retain wetlands.
- New drain construction project benefits should be clearly identified.
- Put teeth into the Water Rights Act to control drainage — drainage is not being enforced by municipal councilors.

Draft Water Policy 7 Education

NO DRAFT EDUCATION POLICY

Rationale for Education Policies - Water

The subject of public education came up at virtually every meeting and workshop throughout the public consultation process. "A long-term public education program must be developed." In the minds of many participants, the policy on education in the soils workbook was the "single most important policy" in both workbooks.

Participants wondered why there was an education policy for soils but not for water. They felt that water warranted a separate education policy because of the different facets of both resources. Any attempt to cover both in a catch-all series of statements could not do justice to such a critical area of concern.

The following quotations are representative of public input on education and are included here to give you an idea of the material used to develop first draft education policies for water.

General Comments

- Research and experimentation should be conducted on ways to better control water movement within watersheds.
- The policies must encourage the search for new knowledge and must indicate mechanisms for incorporating new ecosystem knowledge as it is obtained. Means for tapping into available expertise ie federal and provincial labs, universities and other agencies should be included in the policies.
- In the US when the programs were backed up by education there was tremendous success.
- Educating the public on good conservation practices is very important on subjects ranging from irrigation, drainage, and herbicide use to hydroelectric development and sewage disposal.
- The Province must support a technical infrastructure to carry out studies and maintain data bases, to ensure that an adequate knowledge of water resources is developed and available for evaluating water resources development or modifying projects.
- You must educate urban people in the need to conserve.
- The complex and staggering quantity of data and information from the scientific community must be compiled, interpreted, and communicated to decision-makers and the public.
- I recommend an hour-long class on conservation for the school system which teachers can develop.
- More research is required on crop rotation, zero till, pesticides.We need demonstrations and exchange programs.
- Much of the technology currently available must be translated and adapted for on-farm use. Demonstrations of projects and equipment are needed to display the practical application of new technologies.
- Encourage changes in farming practices, particularly in areas such as cropping rotations, pesticide use, and other weed control methods.
- Increased effort is needed to accomplish water conservation through educational efforts.
- Use local rather than academic expertise where possible.

'Single most important policy'

Suggested Water Policy 7

- Education groups could be based on volunteer help.
- Coordinate the work of educational groups like the Manitoba Heritage Group and the Manitoba Habitat Trust Land.
- Emphasis should be on instructors with hands-on experience rather than those with purely academic qualifications.
- Use major research projects like Lake Dauphin basin to focus attention on water conservation and its effects on other resources.
- Educate the public as to what the individual can do.
- Education and public awareness programs should stress the long-term benefits of conservation.
- Teach a conservation ethic in schools.
- Provide education on more efficient methods of irrigation.
- Increase education through schools and environmental centres.
- Involve other organizations in education - trappers, campgrounds, parks.
- Avoid presenting a negative picture of agriculture.
- Research programs should have farmers as advisory group.
- Field trips and demonstration projects are well worthwhile.
- Demonstration projects should show conservation techniques in action.
- Education is the most important policy.
- Use local recognition programs.
- Involve local groups (fish and gun associations) in education process.
- That education must play an important role in any soil and water management programs.
- We would recommend that the water policy specifically state the need for education about water conservation as a cornerstone of its policy.
- However, we would hope that regulations and education can be simultaneously applied with incentives in making your water policy succeed.
- Our premise is that while incentives can motivate and regulations can be enforced, education creates understanding.
- Actions most often take place where there is understanding and knowledge.
- A strong soil and water conservation education program should be set up at all levels in the Manitoba school system as soon as possible.
- Educate the children. Establish demonstration projects at all local areas using a local coordinator.
- I believe that a lot of educating people on a long-term basis will need to be done.
- Educate the public and help financially by government where possible.
- An off-shoot from an education program to encourage wise use of water.
- I have a strong bias for long-term detailed data gathering to enable better decision making.
- I do not think working to alter the complacent attitude to water, a lifegiving resource, should be important -- people take water for granted. Perhaps a day without running water would make people more aware.
- To educate successfully you will have to provide instructors that can communicate with the group to be taught.
- Your materials for water quality education are non-existent. If one asks questions about the quality of water and asks for additional information -- none exists.
- Government should spend more money on educating the general public on the need for better land and water stewardship.
- This generation knows more about the fragile environment and I feel with the proper education program we can do a lot on this front.

OBJECTIVE

To enhance the awareness and knowledge of Manitoba's water resources.

POLICY 7.1
SCHOOLS

Students of all ages shall be provided with information on the significance of Manitoba's water resources.

POLICY 7.2
GENERAL PUBLIC

Education on water matters shall be achieved in part through the sharing of information, demonstration projects and the involvement of the general public.

POLICY 7.3
FORUM FOR SCIENTIFIC AND TECHNICAL INPUT

A forum shall be developed to obtain input from the scientific, technical, and professional communities on water management issues.

POLICY 7.4
COMMUNITY LEADERS AND ELECTED REPRESENTATIVES

Community leaders and elected representatives shall be provided with the information they need to make sound water management decisions.

Draft Soil Policy 1 Soil Quality

OBJECTIVE

To manage the agricultural soil resource of Manitoba so as to enhance soil productivity for the economic benefit of existing and future generations.

Overview

Participants agreed with the objective of Policy 1 and stressed that the quality of our soils is of utmost importance.

Controlling erosion is generally recognized as the key to sustaining the productivity of our soils. Reducing tillage, leaving straw on the surface, using field shelterbelts, and growing forage crops were among the measures suggested to control erosion.

People also recognized that controlling erosion often requires additional expenses or new equipment. They made it clear that some assistance or incentives would encourage more farmers to practice conservation.

Zero and minimum tillage were often considered effective in maintaining soil quality.

POLICY 1.1

Soil erosion shall be controlled within tolerable loss levels.

Many people came out in support of reducing or strictly controlling the burning of straw on farm fields, recognizing that this practice is harmful to the soil. But it was felt that some leeway must be left for burning to allow for extreme cases where not burning would be a serious burden to the farm operator.

Participants agreed that in cases where the cause of damage to land was not directly related to management of that land, rehabilitation at public cost was acceptable. When land is damaged due to mismanagement on behalf of the owner, rehabilitation should be at the owner's expense.

General Comments

POLICY 1.2

Soil organic matter shall be maintained at the highest feasible level to preserve natural fertility and to retain the physical qualities of soil that are desirable for plant growth.

- Ultimately we should be moving towards organic farming.
- All of society should bear the costs of conservation.
- Have there been studies on snow trapping?
- Rural and urban society relies on the quality of the soil.
- Conflict may be developing between conservation tillage and summerfallow — if you refrain from tilling you have to use chemicals.
- Large farms are destabilizing the countryside — larger may not be better.
- Perhaps a return to mixed farming will bring more people back to farming.
- Education is the key to motivating farmers in adopting conservation techniques.
- Farming practices need to be based on long term management but many farmers cannot practice conservation because of short term financial pressures.
- Rapid depletion of soils has to be slowed.
- How is it that soils in Europe have been used for hundreds of years without degradation?
- Increase livestock production.
- RMs should have option to charge farmer cleanout cost of drains due to soil drifting.
- One ton lost for every ton of corn exported.
- Three prerequisites before farmers will adopt soil conservation:
  1. economically favourable climate (crop insurance, machinery tax credits, reduce fuel prices).
  2. has to be socially acceptable (support of government and public is necessary).
  3. Technical know how has to be readily available (ie the centre in Guelph).
- Economics are the reason for present day land use problems.
- The general public should pay for incentives since it benefits everyone.
- No stripping and selling of topsoil — RM has by-law but is difficult to enforce.
- Farmers can manage their own soil quality if consumers are willing to pay the price for food.
- Talk the farmers language — farmers listen better to farmers.
- Lack of incentives in existing programs.
- Assistance programs are tied to crop production which does not encourage resting the soil — better to tie into setting lands aside as in the US.
- Overtilling is a problem.
- Conservation presents necessity — economical only in special areas.

POLICY 1.3

Soils damaged by wind and water shall be rehabilitated where feasible.

'If we don't manage our soil, we could be in serious trouble in the not too distant future'

Suggested Soil Policy 1

- Conservation districts concept is good.
- There is more soil lost to urban sprawl than to soil blowing.
- If we don't manage our soil, we could be in serious trouble in the not too distant future.
- Sometimes erosion just cannot be helped.
- Soil should be managed so that it doesn't require as much fertilizer.
- Soil quality is a big concern on rented land — Incentive does not always exist on rented land to preserve soil quality — short term gain is often more important.
- Sometimes it takes a mistake for a farmer to realize his land use practices are not appropriate.
- Pollution of rivers, streams and lakes is greatly overlooked due to the lack of policing.
- We have to learn to leave forest, bush and peat alone to prevent washing and blowing away of soil.
- The Interlake has fields and forests which are very productive and these should stay in their natural state.
- Areas with steep slopes need to be protected from water erosion and sandier soils need protection from wind erosion — farmers need to be encouraged to cooperate in this process.
- An important part of this strategy should be forage production/establishment and this not only needs to be recognized as an important soil stabilizer but also as a valuable alternate crop.
- Our main concern is the likely development of recommendations for use of marginal land and highly erodable land — the forage seed industry should be consulted.
- Educate the public as to the cost of pollution — economic costs and more importantly , the environmental costs.
- Something has to be done quickly to preserve our land base from erosion and to protect our environment. All land uses must be considered and appropriate uses must be made of the land base. Actions taken on one portion of land impact on the surrounding landscape and the results of indiscriminate planning are showing up at present.
- Heavy soil erosion — rivers and lakes are being polluted/altered so as to become of limited value.
- We are losing water retention/purifying areas — drainage results in straight flushes of water from point A to B taking everything with it
- We are losing natural barriers/habitat on ag lands — whole townships are being cleared of natural vegetation and every little pothole is being drained.
- No mention is made of the agricultural industry's heavy reliance on chemical agents and how to avoid this reliance — should give some consideration to organic and mixed farming practices.

Specific Comments on the Policies

Objective

- Policies need to discuss implementation.
- Objective — each acre to its best use.
- Very important and agree entirely.
- Ensure that conservation does not lead to less production — if it does, who will pay?
- Concern that the converting of fragile lands to alternate uses doesn't mean that it always must be taken out of ag production.
- Difficult to enforce and determine who is at fault.
- Very necessary.
- Motherhood statement — needs to be expanded.
- Benefits should not be defined only in economic terms but in environmental benefits also.
- Policy must be practical and workable.
- Change "enhance" to "build up".
- Must keep mind on future sustainability vs existing which can be contradictory.

Policy 1.1

- What does "shall" mean?
- Change "shall" to "should" — Shall usually means enforcement.
- Define "tolerable loss".
- Importance must be recognized.
- Acceptable but may be hard to implement.
- Could be an unfair burden on some farmers — beyond their control.
- Provisions for on farm planning service.
- Agree strongly — will have all kinds of spin off benefits (ie improved water quality).
- A target date should be established to ensure action.
- Difficult to enforce, but farmers should be hit in the pocketbook if they want to practice negative conservation farming.
- Very important — but we feel soil quality comes naturally from soil conservation measures.
- Who is going to monitor and police?
- Incentives are probably the only way to control erosion.
- All drainage erosion damage should be billed to the landowner from where it originated.

OBJECTIVE

To manage the agricultural soil resources of Manitoba so as to sustain or enhance soil productivity for the benefit of existing and future generations.

POLICY 1.1

Soil erosion shall be reduced to tolerable levels, using education and incentives and, where necessary, regulations.

POLICY 1.2

Soil organic matter shall be maintained at the highest feasible level to preserve natural fertility, reduce erosion, and retain the physical qualities of soil that are desirable for plant growth.

POLICY 1.3

Agricultural soils shall be protected from erosion and deposition by appropriate management practices.
(Formerly Draft Soil Policy 2.4)

POLICY 1.4

No revisions.
(Formerly Draft Soil Policy 1.3)

Soil Quality cont'd

- Need to define what "tolerable means".
- Implementation could be difficult.
- Landowner should be responsible for cleanup costs.
- Goal should be set at no loss.
- Agree.
- Reword to read "Soil erosion shall be controlled..." .
- No soil erosion should be the goal or reduction to the best of one's ability.
- Without definition of "tolerable"' and without financial incentives we could resort to unworkable and heavy handed regulation.
- Define "tolerable loss levels".
- The idea of tolerable losses has a high degree of variability and no standard is set.
- Too vague a policy.
- Delete the words "within tolerable losses" from the statement .
- "Tolerable" must be clearly defined .
- The word "tolerable" leaves this policy open to interpretation — change to read "Soil erosion shall be minimized".
- The word "tolerable" must be defined and quantified.
- Depends on how you define "tolerable levels".
- Change "shall"' to "should".
- Losses due to poor farming practices should not be tolerated.

Policy 1.2

- Agree.
- No major difficulties.
- Who monitors what is happening?
- Require creative thinking and visionary approach by government, RMs and farmers.
- Need programs to make sustainable agriculture more viable — who pays?
- Does this mean it is illegal to burn straw in the Red River Valley?
- Education and incentives needed to fulfill this goal.
- Policy should encourage continuous cropping and regular rotation.
- Agree.
- This requires research for proof and time for old habits to change — it will take time and education.
- It appears that trace elements are also important.
- Rehabilitate only where economically feasible.
- Does this indicate zero tillage and high chemical uses?
- A vague policy.
- Define "feasible".
- Organic matter is also important in controlling erosion and it should perhaps be emphasized in the policy.
- Change "shall" to "should".

Policy 1.3

- Add Policy 1.4: Reward management practices that improve soil productivity.
- Add the words "...where economically feasible".
- Involve farmer in the decision process — he knows his land best.
- What method would be used to rehabilitate? — ie grassing gullies, forages and trees.
- How many times do you rehabilitate?
- Provision for cost recovery for rehab from farmers under some circumstances.
- Rehabilitated at whose expense?
- Go beyond rehabilitation — rehabilitate and protect by planting permanent cover to protect the land from future damage.
- Who pays?
- Who pays if damage occurs naturally?
- Include assistance of local groups.
- Should not rehabilitate in extreme cases.
- Rehabilitation of soil drifts should be paid by farmer responsible for erosion.
- How are we going to pay for rehabilitation?
- How are we to enforce this?
- Rehabilitation should be done by the farmer with government providing assistance and money.
- Public money should be spent to rehabilitate soil, then some requirements to protect the soil from erosion should be placed on land owners.
- Drop the word "where feasible" from the policy.
- Good idea, jobs will be created along with the land reclaimed.
- Rehabilitation should depend on type of soil and amount of rehabilitation required — establish priorities and look at long term soil inventory.
- Some rehabilitation is not economically feasible.
- Very dependent on who pays for the rehabilitation.
- Mother nature can generally do a better and more economical job of rehabilitation.
- Large scale damage assistance is a good idea, however corrective measures must be installed.
- At whose expense will it be rehabilitated? — If soils rehabilitated we must ensure that they are then properly managed.
- How will rehabilitation be done?
- Feasible is the key word here.
- Should include something about protection from further damage even if rehabilitation is not feasible.
- Rehabilitation should occur at some cost to the person or agency that caused the damage.
- By whom and at whose expense?
- Define "feasible".
- At whose expense?
- People who are at fault should pay the costs of rehabilitation.
- Change "shall" to "should".

' Incentives should be provided to plant shelterbelts to prevent soil erosion '

Programs and Initiatives That You Suggested ...

- Market more opportunities for organic farming.
- Pass the costs of organic farming to consumers.
- Monitoring of chemical buildup in the soil base.
- Assessment system has to be changed to allow marginal land to be left in its natural state.
- Conservation farming machinery should be made available for demonstration.
- Financial incentives required in the whole area of soil conservation.
- Chemical companies have to become more in tune with conservation — come up with safe chem substitutes.
- Follow Alberta's lead — hold the landowner responsible for soil degradation.
- Have an Act for soil degradation similar to noxious weeds — soils inspectors rather than weed inspectors.
- Adequate organic matter should be left on cropped land.
- Plant marginal land back into its natural state.
- A land and water conservation course should be offered in the schools.
- Ensure that management takes into account the varying soil types — regional differences exist.
- Place less emphasis on production and more emphasis on sustaining our lands.
- Incentives for shelterbelts and seeding.
- Owner of eroded land should bear the costs (ie cleanout of soil from drains).
- Where incentives or subsidies are offered, farmers should be forced to adopt proper conservation techniques.
- Demonstration projects could do more than advertising in promoting conservation practices.
- Change tillage practices to reduce soil losses.
- Enforce conservation practices in areas where abuses are still occurring.
- Continue research into management practices that enhance soil building.
- Govt. should promote and reduce cost of glyphosate.
- Penalties assessed to farmers who allow their fields to erode.
- Limit subsidies to farmers who practice conservation farming.
- Allow recovery of all or part of rehabilitation costs in specific circumstances (ie drain cleanouts).
- Set guidelines for residual levels for particular soil types.
- Move to granular forms of chemical control.
- Incentives for tree planting, more staff, summer students for maintenance.
- Land taxes should be changed to reflect the productivity of the land.
- Economic diversity to include managed game and fish farms.
- Good tree management — control removal of trees.
- Financial incentives needed to help defray the cost of conservation tillage equipment.
- More hay and tree production on marginal lands.
- Education program for producers.
- Need to encourage shelterbelts, crop rotation, forages.
- Incentives for shelterbelts, seeding, forages, crop rotation.
- Tax breaks for planting shelterbelts.
- Promote continuous cropping and the use of legumes.
- Develop markets for forage crops.
- Restrict stubble burning.
- Promote manure as an alternate fertilizer rather than chemicals.
- Promote forages in rotation, continuous cropping and reduced tillage system.
- Government assistance for research and development of low cost chemicals.
- Programs and incentives to encourage zero tillage farming.
- Encourage shelterbelts, crop rotation, residue management.
- Excessive burning of flax straw, sweet clover should require a permit.
- Farmers should work in green manure to increase organic matter.
- Incentive to farmers to use organic methods, encourage summerfallowing.
- Producer education on trash management to stop wind damage and erosion.
- More help from govt. to promote conservation tillage practices — subsidize the cost of purchasing zero tillage equipment.
- Strong disincentives not to leave land susceptible to erosion.
- Tree planting and maintenance on low class ag lands.
- Incentive to sow down land that is damaged (sow down grass etc).
- Programs for planting trees and native grasses — good management.
- Encourage education, zero tillage, strip farming.
- Seed damaged soils in grasses.
- Encourage farmers to retain stubble on fields and encourage zero tillage.
- Residue management is the key to reducing erosion on cropland — especially important on specialty crops — need to promote using incentives and education.
- Shelterbelts around every section should be made compulsory.
- Tax relief for leaving land in its natural state.
- No burning without permit, weed inspectors.
- Stop clearing of tree cover on poor quality soils — especially crown lands to set example.
- Peat burning should be outlawed.
- Stubble should not be burned except under extreme conditions.
- Burning of straw should be banned or somehow curtailed.
- Grass and trees should be planted in the worst damaged areas.
- Incentive needed to replant headlands and lowlands with trees and grasses
- There are thousands of acres of light, sandy soil which should be taken out of production and reverted to grasses with some compensation given to farmers.
- Government grants encourage the breaking of poor quality soils for ag production — survey of poor quality lands required and owners encouraged to keep such lands in their natural state through incentives.
- Establish a program to encourage the production of hay on hillsides to prevent erosion — a central organizing committee similar to the Wheat Board should be put in place to organize this program.
- Conservation Districts to minimize erosion should be established throughout Manitoba.
- A program for used oil pickup from farms would be helpful in reducing pollution from used oil on farms.
- Water erosion starts with the draining of sloughs and wetlands that store water and prevent the high volume of water from eroding the soil during spring runoff — must convince farmers somehow to refrain from draining — monitoring, incentives and inspections are some options that may be undertaken with landowners.
- Ban salt spreading on roads and use sand only.
- Chemical companies must be encouraged to produce granular herbicides that are lower priced than liquid counterparts so that organic matter is allowed to remain while maintaining agriculture.
- Promote proper management/protection from erosion by not draining potholes, leaving forested buffer zones along creeks and rivers thereby reducing runoff and creating windbreaks to catch snow.
- Soil rehabilitation should be paid for by the guilty landowner

Draft Soil Policy 2 Soil Moisture Management

OBJECTIVE

To sustain or enhance agricultural productivity on lands that are prone to deficit or surplus soil moisture conditions.

POLICY 2.1

The efficient use of available soil moisture for crop production shall be enhanced by the promotion of appropriate agricultural and conservation practices.

POLICY 2.2

Maintenance and reconstruction of drainage systems shall be of higher priority than expansion into marginal agricultural lands or fringe areas.

POLICY 2.3

Standards for land drainage systems shall be established based on agronomic, technical, economic, and environmental criteria.

POLICY 2.4

Agricultural soils shall be protected from erosion and siltation by appropriate soil management practices.

POLICY 2.5

Agricultural soils shall be protected from flooding where feasible.

Overview

Participants were generally in favour of applying soil moisture management techniques to sustain or enhance the productivity of agricultural lands affected by too much water or too little.

Discussions of measures for effective soil management elicited many of the ideas and suggestions aired throughout the meetings and workshops: shelterbelts and reforestation, snow strips, minimum and zero tillage, more mixed farming, less burning, stubble regeneration, backflooding and small dams rather than large ones; incentives to farmers to keep marginal land out of production, credit for saving potholes, and penalties for deliberately contributing to further erosion; and more education for urban and rural residents, more demonstration projects, more research into tillage practices, and local involvement in setting land drainage standards.

General Comments

- Soil and water conservation should lean towards incentives rather than regulations.
- The public should assume the costs of conservation up front rather than paying through increased food prices.
- Good soil management, shelterbelts, snow strips and minimum tillage will improve the water holding capability of the soil.
- Need more programs like Agri-Food.
- More can be done but need more info — who will pay for seeding practice changes?
- More use should be made of CDs.
- Support the concept of Con. Dist. — give them more money.
- How can you tell a farmer that he can't burn stubble? — Education needed.
- Discourage unnecessary drainage where appropriate and repair damage already done.
- Adapt agr to meet the land rather than adopt the land to meet the needs of agr.
- Groups more effective in communicating than civil servants.
- Has Dept of Highways considered impact of their placement of drainage structures?
- Flooding in spring may not do much damage.
- Let water sit. When making drains install baffles, delay runoff where feasible to allow sub soil moisture build-up.
- Sustain land prone to surplus moisture to retain moisture.
- Controlled drainage works both ways.
- Let things happen naturally and the people affected pay the price — not gov't.
- If irrigation is used, expect problems with quality of surface and groundwater.
- Drainage improvements on-farm should be left to the landowner's responsibility.
- It might be cheaper in the long run to create parks or wildlife habitat reserves.
- There is far too much drainage. Stop draining good deep sloughs.
- Drains should be constructed such that farmers don't have to risk their lives cutting hay on side slopes.
- Draining low lands has caused higher lands to become more arid with lower water tables; don't convert all land for cropping; use (some) for cattle, wildlife or other uses.
- Consider drainage projects. Highways?
- Replanting of trees must be started on erosion prone areas.
- We should first protect what soil we have instead of exploiting other soil ie converting fragile lands to alternate uses.
- It may be necessary to raise the water table.
- To control excessive flooding of agricultural lands and waterfowl habitats from high and low discharges through Fairford Dam into Pineimuta Lake and Lake St. Martin; and continued pressure on various governments to implement control measures to maintain levels on these two lakes as per the draft water control "plan".
- The water has to stay someplace for a few days. It all can't go in the river.
- Controlled drainage. Flash floods from heavy rains on flat land cannot be avoided.
- No more grandiose plans to dyke and dewater large tracts of land.
- More use of smaller dams.
- Some lands have been (farmed) when they should have been left natural. This has resulted in fast runoff with no natural barriers. May have to reconvert some areas.

"Soil and water conservation should lean towards incentives rather than regulations"

Suggested Soil Policy 2

Specific Comments on the Policies

Objective

- Amend to read: "Encourage alternative uses on lands that are prone to excessive or deficit moisture conditions".
- Important.
- Would need regulations or incentives.
- Where it is economically feasible.
- Much of this type of land came into production for quota acres during the good years. It should be retired.
- Consider returning such areas to their native state.
- I would like to see this done via crop management versus irrigation and drainage.
- If too wet — maintain as marsh (5.2); if too dry — leave it alone or you have high costs or salinity problems.
- Depending on soil type, the amount of rehabilitation required, etc. establish priorities and look at long term soil inventory.
- Disagree with this which suggests squeezing into production land that is ill-suited for agriculture; conflicts with 5.2.
- Marginal land should be treated differently depending on feasibility.
- These lands should not be farmed. Let nature restore them.
- Disagree because irrigation and/or drainage to better manage soil moisture conditions is done at a cost to other, perhaps more socio-economically valuable, uses of water resources.

Policy 2.1

- Write in that Gov'ts should abide by policies.
- Who pays for what parts? — Producers should not have to pay for recreation and wildlife benefits.
- Policy concept good but will not fly without incentives.
- Conservation practices should reflect the local area and conditions — Conditions and soil types vary region to region.
- An education process.
- If agriculture cannot be maintained under existing soil moisture conditions then the land should be used for other purposes.
- Based on research, education and practicability.
- Change "enhanced" to "encouraged".
- Who will determine appropriate?
- If I can afford it!

Policy 2.2

- Need a better definition of what "marginal" means.
- Social factors should be considered.
- In many cases land is over drained — native forages suffer.
- Benefit/cost ratio and environmental considerations should be of higher priority than just land classification.
- Who pays for maintenance of existing systems?
- Maintain existing drains wherever possible.
- Must weigh local interests vs provincial interests.
- Agree strongly.
- Put a stop to expansion of drainage into marginal areas.
- Fully agree.
- Can't argue with this statement.
- Covered under water management.
- Excellent policy.
- Add a policy prohibiting the burning of stubble.
- The criteria need to be priorized. Environment criteria should get a high rating.
- Environmental only, if you can't farm it don't break it.
- Highlight environmental.
- Write "controlled" drainage.
- In cooperation with farmers.
- "technical" criteria is vague; should be based on benefits and costs including loss of other resources.
- Take out the words "agronomic, technical, economic, and".
- Good.
- Subject to technology changes making marginal lands of greater value.
- Prevent damage by establishing buffer strips next to ditches by caveat.
- No drainage should be allowed without full consultation with the farmer downstream.
- Areas that require drainage should be left alone.
- Once (drainage systems are) constructed maintenance is the key. Do not allow to deteriorate to stage where reconstruction is necessary.
- Where drainage systems cannot be properly and economically maintained, they should be abandoned and alternate control measures used.

OBJECTIVE

To sustain or enhance the productivity of agricultural lands that are prone to deficit or surplus soil moisture conditions.

POLICY 2.1

The efficient use of available soil moisture for crop production shall be encouraged by promoting the use of appropriate agricultural and conservation practices.

POLICY 2.2

Maintenance and reconstruction of drainage systems shall be of higher priority than expansion into new agricultural areas.

POLICY 2.3

The standard of drainage shall be based on the productive capability of the soil and on technical, economic and environmental criteria, recognizing watershed, community and farm impacts. (Same as Water Policy 6.2)

POLICY 2.4

Agricultural soils shall be protected from flooding where practical. (Formerly Draft Soil Policy 2.5)

Soil Moisture Management cont'd

Policy 2.3

- Involve producers in setting the standards.
- Require standards for water control — must be more reasonable.
- Environment should be mentioned ahead of the word "technical".
- Common sense and practical experience.
- Agreed.
- Standards have to be set by region.
- Suggest flexible drainage standards to meet local needs.
- Agree.
- Irrigation.
- Same comment as 2.2.
- Agree if environmental criteria has priority.
- Write "controlled" drainage.
- Reasonable being the key word.
- Mainly environmental criteria.
- Environmental concerns should be foremost.
- Agree if four criteria are given equal weight.
- There is a danger in over-emphasizing environmental concerns.
- We have been too quick to drain; study this more carefully.
- Agree if four criteria are given equal weight.
- Present drainage systems are contrary to the objective.
- Length of time to review compliance with criteria could be a negative factor.
- Good; Dams — small ones.
- Based on common sense, economic viability, public acceptance.
- No more drainage.
- There is a danger in over-emphasizing environmental concerns.
- Should be no net loss of habitat and wetlands.
- There has been too much ad hoc drainage; it may be unnecessary or accomplished differently.
- Who will establish, who will pay? Length of time for review could be a negative factor.
- Who pays my taxes on wetlands if the standards set down don't allow me to drain these areas?
- Downstream flood control must be considered in planning new drainage systems.

Policy 2.4

- Change "siltation" to "deposition".
- Agree.
- Agree — more education.
- Use education to implement.
- Purely educational — should contain incentives to stop erosion.
- Good.
- It is very difficult to farm according to such a statement as "shall be protected". Some erosion is always possible.
- Who and how will "appropriate" be determined?
- Provided they are accompanied by research, education and measurable time frame to adjust; avoid heavy handed regulation.
- How will this be implemented?
- The soil management programs are the key to this policy.
- Who is going to pay the shot? I have to make every acre pay now (the bank wants interest).
- Plus the addition of a lot more shelterbelts.
- Use incentives rather than laws.

Policy 2.5

- Change to read "...where economically feasible".
- Feasible — should take into account water storage.
- Need distinction between spring, summer and fall flooding.
- Water on the land is not a problem if it is drained in a reasonable time.
- Agreed but with revisions to status quo.
- More emphasis on smaller projects rather than grandiose schemes.
- Must consider other methods of slowing runoff — not just at the headwaters.
- Only if economically feasible; they can always be drained later if needed.
- Base it on costs and benefits.
- "Feasible" is the key word here again.
- "Feasible" must be made clear.
- Trees would reduce this annual occurrence.
- Flooding may not necessarily be bad. Remember the Aswan Dam on the Nile.
- (Flooding is a means of) natural nutrient regeneration.
- Flooding does not damage soil where proper drainage is constructed.
- Let private sector pay for their own protection.
- Depends on whether this is a natural cycle to flush the land.
- Possibly other uses could be made of flood prone lands.
- Neutral because irrigation and/or drainage to better manage soil moisture conditions is done at a cost to other, perhaps more socio-economically valuable, uses of water resources.
- In some cases flooding is good for cultivated land — ie the Swan River valley in 1988 had good crops after flooding.

' Maintain proper cover on soil to reduce evaporation '

Programs and Initiatives That You Suggested...

- Crop rotation to improve internal drainage — Alfalfa requires more water than wheat.
- Controlled drainage.
- Use controlled drainage.
- More research on soil moisture and crop input relationship.
- Promotion of moisture probing as a basis for cropping decisions.
- Promote back flood irrigation — high potential and cheaper than centre pivot irrigation.
- Make available appropriate technology — Government responsibility.
- Maintain proper cover on soil to reduce evaporation — demonstration plots are required.
- Compliance to conservation practices needed.
- Financial incentives needed to encourage conservation tillage.
- Promote stubble retention.
- Encourage zero tillage, shelterbelts.
- More research into conservation tillage practices.
- Government support for chemicals that support conservation tillage practices — ie Roundup.
- Provide incentives for conservation tillage.
- Penalize farmers who deliberately enhance erosion.
- Leave stubble on soil or maintain residue.
- Compensate zero tillage farmers for specialized equipment needed.
- More education is required — rural and urban residents.
- Controlled drainage.
- Incentives to farmers ($) to keep marginal lands out of agricultural production.
- Define and educate public as to the different classes of land and what they can be used for.
- Need education and demonstration projects.
- Long term research on the effects of chemicals.
- Encourage forage crops.
- Encourage crop rotation.
- Encourage more mixed farming.
- More education of farmers in soil management practices.
- Reduce chemical costs as an incentive to adopt minimum till methods.
- Incentives for shelterbelts.
- Taxation credit for wetland retention.
- Should have headwater dams on the Woody and North Duck rivers to reduce downstream flooding.
- Consider stopping agricultural use of lands that are unsuitable.
- Minimum till agri-foods.
- Should promote through incentives the use of residue to trap snow; and field shelterbelts.
- Leave forest, bushes and some potholes to stop snow water to recharge aquifer.
- Controlled drainage works both ways; (provide) incentives to re-plant headlands and low areas to grass or trees.
- Maintain stubble; brushlines; plant winter wheat.
- Shelterbelts.
- Need a water retention system and a program to encourage it — not more drainage.
- Stop illegal drainage; ensure drainage projects are viable; maintain swamps for uses other than agriculture.
- No drainage should be sanctioned above the escarpment; rather, water conservation should be fostered to eliminate the need for drainage — $ incentives to do so.
- Controlled drainage, reforestation, crop rotation etc.
- Look at shelterbelts to prevent erosion.
- Reduce fallowing; maintain cover.
- Discourage burning and over tillage.
- Financial incentives should be established for shelterbelts and natural bluffs instead of penalizing with taxes.
- Must reverse the trend of cutting down shelterbelts.
- Build small dams; consider drainage projects/highways; give credits for saving potholes.
- Credit for saving potholes.

Draft Soil Policy 3 Saline Soils

Overview

Education, research, good cropping practices and the use of forage crops were identified as key techniques in managing saline soils.

Discussion revealed strong support for removing highly saline areas from agriculture or leaving them in a natural state, as wildlife habitat.

OBJECTIVE

To improve the management of saline soils.

General Comments

- Alberta is ahead of Manitoba in the treatment of saline soils.
- Salinity will increase with drought and current farming practices.
- Excessive use of road salt (400 million tons across Canada).
- Alfalfa will take salts out of the soil.
- Because of government subsidies, some marginal lands are coming out of production.
- Good soil management can minimize salinity.
- Concern over point sources of salt on agricultural land from city snow dumps and Highways use of salt.
- Very little soil salinity in the Swan River area.
- Good agricultural land is being used up by cities and roads.
- Should put cities on salinized soils or in the Interlake.
- Whitewater Lake area has saline areas beyond repair.
- Research sadly lacking.
- Privately owned land — cannot be deemed non agricultural.
- Must avoid further fragmentation of large blocks of land. There is potential for non crop agricultural uses.
- Attempt to promote forage growth.
- Proper tillage methods would also reduce soil salinity.
- Salinity is a problem in some areas along sloughs — draining these sloughs and continuous cropping has greatly reduced the amount of salinity in these areas.
- Common sense agriculture.
- Add "to improve the productivity through alternate management practices, alternate crops and alternate crop uses."
- Too motherhood.
- Somewhat vague — by what means?
- These soils should be left to whatever forages will grow — will not produce grain crops.
- A lot of work is necessary in this area.
- Education as to how best to avoid salinization.
- Research to determine cause.
- Vague — by what means?

POLICY 3.1

Soil management practices that reduce the spread of soil salinity shall be promoted.

Policy 3.1

- Reword to read: "...that reduce and improve the agricultural productivity of saline areas...".
- Amend to read: "Soil and water management...".
- Control of salinity must consider the cause and source.
- How do we control salinity if we don't know the source?
- Agree.
- Compensation for saline soils — maybe in the form of tax discounts for saline soils.
- Should drainage be considered in this policy?
- How?
- No problem in some areas.
- By whom and how?
- Replace "shall" with "should".
- Including leaving in forages or as wildlife lands.
- Assessment Branch rates these areas too high. They don't see them at their worst.
- This will mean very serious consideration of irrigation.

Specific Comments on the Policies

Objective

- Identify grasses and alternate crops that will tolerate saline soils.
- Irrigation is not a major cause of salinization in Manitoba.
- What other uses could saline soils be put to?
- Are saline soils near bodies of water?
- Consider tax structure, government grants etc.
- More concern about production from acres.
- We need more research into this area.
- Proper drainage would reduce saline soils.

POLICY 3.2

Severely salinized areas shall be considered for non-agricultural uses.

'Examine crop alternatives for saline soils'

Suggested Soil Policy 3

Policy 3.2

- Policy 3.2 should read: "Make best use of soil by planting clover, etc. year after year if necessary".
- What do you mean by non agricultural uses?
- How can saline soils be reclaimed?
- Best use of these lands.
- Salinized soils should be managed properly but not taken out of agricultural production altogether.
- Add that saline areas found in their natural state shall not be used for agriculture.
- Lease farmland for alternate uses (waterfowl, HELP etc.).
- Reduce drainage of potentially saline soils.
- Do so with consultation of farmers involved.
- Use consultation instead of confrontation in determining non-agricultural use.
- What purpose/use would we put saline land to — natural grasses, wildlife (not subdivisions!).
- Should turn it back to its natural state.
- Good thinking.
- How?
- What does this mean? "Non agricultural use" can mean anything including waste dumps.
- Only when management is impossible. Agricultural management is the best way to improve.
- "Salinized areas must be for non agricultural uses."
- Only when there is no conflict with agricultural uses on adjacent lands.
- Replace "shall" with "should".
- Leave in natural state — tax credits. Bird nesting cover, wildlife.
- Not until all improved management techniques have been tried with the exception of concentrated pockets which cause minimal disruption.
- Important.
- Wildlife habitat reserve — ie let it go back to nature or recreational purposes.
- Could these areas, if determined to be non-agricultural, be planted to something suitable for wildlife habitat and if so, would I get some assistance or tax break?

Programs and Initiatives That You Suggested...

- Proper crop management to prevent salinity.
- How many farmers understand salinity? — Education needed.
- Put saline soils into forage crops.
- Stop summerfallow practices.
- Research and demonstration projects for saline conditions.
- Proper drainage and less tillage.
- Promote the use of clover.
- Identify source and type of salts — more research.
- Proper drainage and less tillage.
- Encourage use of forages.
- More research into salt tolerant species of crops — must be done for specific regions since salinity varies region from region.
- Promote continual cropping, salt tolerant crops.
- Examine crop alternatives for saline soils.
- Demonstration projects.
- Reduce summerfallowing.
- Promote soil tolerant grasses.
- Tax credits to encourage alternate use of land (native species).
- More public education needed.
- Good cropping practices.
- Education — how best to avoid salinization.
- Reintroduce plants that will grow.
- Underground weeping tile drainage will alleviate salinity problems.

OBJECTIVE

To improve the utilization of saline soils having agricultural capability.

POLICY 3.1

Soil management practices that increase crop production on salinized soils and reduce the spread of salinity shall be promoted.

POLICY 3.2

No revisions.

POLICY 3.3

Soil salinity on agricultural lands shall not be induced or intensified by construction or development projects in Agro-Manitoba.

Draft Soil Policy 4 Environmental Protection and Enhancement

Overview

People felt that reduced soil erosion would benefit the environment through reduced pollution from farm fields, and that farmers would benefit from reduced erosion and soil degradation. Financial incentives might be required to encourage better practices.

OBJECTIVE

To reduce the environmental impact of soil degradation while sustaining soil productivity.

POLICY 4.1

Soil management programs that reduce soil erosion, siltation and non-point sources of pollution shall be promoted.

POLICY 4.2

Soil management programs that reduce or eliminate pollution shall be designed in consultation with affected user groups and implemented in such a manner as to minimize disruption to established practices.

General Comments

- Does technology really exist to make it economically feasible for conservation farming (if so lets get to the ag rep and the farmer!)?
- Urban residents should bear some of the cost for soil conservation.
- Need conservation farming techniques that will not cost farmers too much money.
- Federal and provincial governments need to do more research into soil erosion control.
- Siltation of drainage channels is an enormous problem.
- Costs farmers a lot of money to feed ducks.
- Pig manure, chemicals — leaching and runoff.
- More chemicals not good
- We do not need and cannot afford wasting resources on making the environment better than nature did.
- Don't get too heavy handed in regulating — this policy could require farmers to pay for cleanout costs of ditches
- Explanations for the policies in greater detail are required.
- Emphasis on shelterbelts and forages, backflood irrigation.
- More chemicals will be needed — farmers will need protection/help with cost and environmental affects.
- Based on research and public awareness
- By concessions. Can't have too much straw lying around — fire hazard.
- Good.
- Programs? What are they? Who pays?
- Disagree with content. Objective is fine from soil point of view, but not for sole sake of environment.
- On what basis, by whom and how?
- Replace "shall" with "should".

Comments on the Policies

Objective

- Agree.
- Emphasis towards sustainable agriculture should be mentioned in the objective.
- Liability for damages if pollution source is identified.
- Concern about farmers' liability for damages.
- Environmental impact not a good choice of words — better to say protect productive base for future generations.
- Environment has already been overemphasized in prairie context. We are not in the Great Lakes watershed.

Policy 4.1

- Good policy as long as pollution levels are within realistic levels so as not to harm "established practices".
- Must try to do this, we have little choice.
- Need combination of education and regulation.

Policy 4.2

- Stress education.
- Agree, but it appears we are compromising our environment.
- Will require a subtle blend of education and regulation to make user groups agree on policy.
- Don't let industry run the show.
- Would be great if it can be done.
- May have to cause disruption by legislating against practices or products.
- Pollution elimination a high priority, but user groups applying pressure must be prepared to pay cost. As is, policy dangerous to agriculture.
- Consultation important.
- "Affected user groups" — good point.
- Where established practices are detrimental, they will have to be disrupted!
- Disagree with disruption to established practices.
- Set some priorities — convenience of established practices vs health of environment.
- Another weak statement — pollution means different things to different people.

'More info to farmer on chemicals so he can make environmentally sound decisions on their use'

Suggested Soil Policy 4

- Environmental priority.
- What kind of pollution caused by soil management — blowing dirt? Burning?
- Disrupt established practices — hard enough to make a living now. What later?
- Minimize is correct. Some disruption will occur and may have to be compensated.
- Replace "minimize disruptions to established practices" with "cease polluting".
- "Minimize disruption to established practices" questioned — depends on practices, especially if they are contradictory to other resource benefits.
- Needs strength, since the damage may be irreversible.
- Established practices that pollute or are harmful to long term quality of soil should be phased out. This rider makes me uncomfortable — should aim to minimize economic disruption, not necessarily disruption of bad habits!
- Delete "in such a manner as to minimize disruption to established practices".
- Replace "shall" with "should".

Programs and Initiatives That You Suggested ...

- Education on the hazards of chemicals and their proper handling and disposal.
- Reduce field working speed.
- Incentives to set aside lands for wildlife habitat, snow traps etc.
- Retain stubble and reduce recreational tillage.
- Don't use chemicals indiscriminately.
- Should require certification (courses) for handling chemicals.
- More research into biological controls rather than chemical.
- Cover crops need to be promoted.
- Re-establish growth on road allowances.
- Do not promote stubble burning and other negative soil management techniques.
- Plant shelterbelts throughout Manitoba — plant by plan not haphazardly.
- Move to more organics — clover and alfalfa replace soil nitrogen.
- Incentive programs to adopt soil conservation techniques.
- Discourage poor soil management practices.
- Curtail stubble burning through education not legislation.
- Encourage crop rotation, forages, minimum tillage, shelterbelts, mixed farming and curtail summerfallow.
- Promote zero tillage, eliminate aerial crop spraying.
- Reward good conservation practices.
- Farm plan to be eligible for handouts.
- Keep such existing programs as Agrifood.
- More info and research on the effects of chemicals on the environment.
- More info to farmer on chemicals so he can make environmentally sound decisions on their use.
- More education on chemicals. Have labels as to actual chemicals involved.
- Perhaps tax breaks or similar needed for landowners who practice soil management programs.
- Financial rewards for those who try instead of taxing them.
- Introduce best management practices and encourage farmers to use them — provide some kind of financial incentive.
- Monitor large livestock operations to minimize pollution.

OBJECTIVE

To encourage agricultural practices that reduce adverse environmental impacts of soil degradation.

POLICY 4.1

Soil management practices that reduce soil erosion, siltation and non-point sources of pollution shall be promoted.

POLICY 4.2

Soil management programs that reduce environmental impact shall be designed in consultation with affected user groups and implemented in such a manner as to minimize disruption of established agricultural operations.

Draft Soil Policy 5 Land Use Planning

Overview

People thought that this policy could best be served by planning based on local input such as Planning and Conservation Districts. These groups of local residents were best able to sort out the many conflicts in land use. The benefit of good provincial based guidelines was also noted.

Incentives were considered necessary to encourage the conversions of fragile lands to alternate uses. Suitable criteria must be developed to identify land that should be converted to a more stable use.

OBJECTIVE

To promote appropriate land use and to protect agricultural operations.

General Comments

- Planning Districts and Conservation Districts are a good idea.
- Land is a food production base — all have a need for it to be sustained — everyone pays.
- Subdivisions encroaching on agricultural land is a problem.
- Protect soil quality through good land use planning.
- The Canadian farmer is the least subsidized in the world.
- Food costs should be more realistic.
- Why do we need 4 roads along Hwy #75 — Productive agricultural land is being taken out of production.
- Curb urban expansion — especially Winnipeg.
- Over grazing, over cultivating, etc. are very prevalent.
- Consider impact of high density livestock operations on small tracts of land.
- People who move into agricultural areas should move out if they don't like it.
- Oil wells cause disruption to farming operations — locate in more marginal land — consider impact on farmer before choosing location.
- Ensure groundwater is managed so that water is available for crops — ie upper A & B soil layers.
- Too much land taken up by roads.
- Not in favour of residential development on agricultural land.
- Land should be assessed before it is allowed to be broken up for agriculture.
- Cities should be growing up and downwards instead of out.
- Need government cooperation re change in assessment policy and tax system. Incentives are needed — honey better than vinegar.
- Land use planning is very important. Biggest part of land use planning is education and awareness.
- Residential areas established in agricultural areas should not be allowed to dictate to the farmers.
- Some of the so-called agricultural lands should best be left in their native state or dedicated as wildlife habitat/recreational lands.
- We might be better off as farmers if more farmland was paved over to reduce oversupply situation.
- Why are agricultural areas being turned into residential land? There are no controls in place to protect agricultural land.
- Less wastage of land in highway improvement would be welcome.
- Why does society have to put up with mis-management? These so-called farmers should not be farming fragile soils and destroying the environment.
- There has been too much marginal land opened up in the past when it couldn't sustain a viable operation.
- I have some fragile land that would be better in alternate use, and I would be willing to rent it to the public of Manitoba for a reasonable yearly rental.

POLICY 5.1

Land use planning shall protect farmlands and agricultural operations from the adverse impacts of developments that may threaten continued agricultural viability.

POLICY 5.2

Programs shall be developed to convert fragile lands to alternate uses that reduce degradation and provide public benefits.

' Fragile lands should be protected — Incentives would help '

Suggested Soil Policy 5

Specific Comments on the Policies

Objective

- Reword to read: "To promote appropriate land management and...".
- Objective should contain "Right To Farm" reference.
- Need strong legislation to curb urban expansion on prime agricultural lands.
- More local input and control required on land use.
- What is the intent of this policy?
- What happens if agricultural operations conflict with other resources (ie wildlife)?
- Farmers should be given priority over land use.
- Agree.
- Broader objective needed. To protect and preserve land for future agricultural development.
- Vague policy.
- Appropriate!
- Objective should read — "To promote effective land use!"
- This can be achieved in part by local planning districts.
- Farmers were here first.
- Where is reasonable and the land is utilized currently for agriculture, not a clump of bush with a clearing.
- May already be too late.
- Land Use Planning to protect farmlands and agricultural operations only, what form of land use planning is being proposed? No protection of wildlife or the environment?
- Think about tourism and wildlife as well.
- Marginal land should not be cleared.

Policy 5.1

- Who will evaluate and define "adverse impacts".
- Land use planning should apply to everyone, including government (ie railway abandonment, highways etc).
- Agricultural use should be a priority.
- Very good policy.
- Is urban encroachment included?
- Any benefits from policies to be directed towards agriculture rather than recreation or other non-agricultural uses.
- Agricultural producers should be involved in planning process.
- Industry should not conflict with agriculture.
- Strongly agree.
- More farmer input required in assessing these types of problems.
- Policies should be tougher on subdivisions.
- Would like to be able to appeal Municipal decision to the Provincial government level.
- Farmers should be compensated for dislocation or cessation of farming activities brought on by urban encroachment.
- More teeth in legislation to give these policies more power.
- Zoning and development should be more closely watched by Provincial Government — Set up "Watchdog Agency".
- Agricultural areas should be preserved for agricultural uses.
- This will be stronger than existing land use policies.
- What developments? Urban, wildlife?
- Change "Land use planning shall protect" to "Land use planning should protect".
- This can be achieved through Planning District Development Plans, Provincial Land Use Policies and Municipal Zoning By-laws.
- Sometimes the poorest agricultural land is used for rural residential areas. It is good to get this land out of production.
- Yes.
- But planning should consider more efficient use of smaller tracts of land rather than moderate use of larger sections of land.
- Is agriculture a viable use of land in this country at this time?
- We currently do this to the point where agriculture threatens the viability of tourism, wildlife habitat, etc. Adopt a more diversified approach.
- Also protect other industries from adverse impacts of farm operations.

OBJECTIVE

To promote rational land use and to protect viable agricultural operations.

POLICY 5.1

Land use planning shall be promoted and shall consider protecting farmlands and viable agricultural operations from the adverse impacts of developments.

POLICY 5.2

Programs shall be developed to convert fragile lands to alternate uses that provide protection from degradation processes and to provide environmental, aesthetic and economic benefits.

Land Use Planning cont'd

Policy 5.2

- Depends on type and value of fragile lands in context of total inventory. Also public benefits is a political time bomb — back to priorities and long term policies beyond political 4 year attention span.
- Converting fragile lands — how do we do it — who pays?
- Define what you mean by "public benefits" to avoid conflict.
- Add Policy 5.3: "Land use should be appropriate to quality of land, should have water quality and non-point source monitoring".
- If implemented it should not be at the cost of the farmer.
- Fragile lands could be put into forage – it doesn't have to be wildlife or recreation.
- Should require permit to break up fragile land.
- Fragile lands could be put into forage.
- Fragile lands should be protected -- incentives would help.
- Leave fragile lands in their natural state.
- Converting fragile lands is a public benefit — government should pay.
- What is the criteria for "fragile lands"?
- Need financial incentives to put land to other uses.
- All 3 levels of government should work together.
- Agree.
- I personally regard statements such as "public benefit" as another term for eventual destruction of a targeted area.
- Change "Programs shall be developed" to "Programs should be developed".
- Local municipalities engaged in various land use projects can, in part, achieve this objective.
- About time.
- Good idea, jobs will be created.
- Especially marginal land broke up when economic conditions were better.
- About time!
- Only if these are not interfering with present farms that are productive and doesn't affect the well being of our small communities.
- Only when agricultural conservation methods are not practical.
- Excellent.
- If it's marginal land — leave it alone.
- So long as benign neglect is considered as an option for some fragile lands of natural beauty and scientific interest.
- Who will determine what are fragile lands and how?

"Restrict development on highly productive agricultural lands around Winnipeg — redirect settlement to poorer lands"

Programs and Initiatives That You Suggested ...

- Prevent subdivision of prime agricultural land.
- Discourage development on class 5 agricultural land.
- Need funding to encourage sustainable farming — incentives to farmers.
- Need Right to Farm Legislation.
- Curb urban expansion onto prime agricultural land.
- "Right to farm legislation" needed.
- Might be a good idea to take marginal land out of production.
- Change quota system to prevent marginal land from being opened up.
- Subsidies should be called something else so it doesn't look like the farmer is getting a handout.
- Establish buffers between residential and farming settlements.
- Protect farmers against complaints (ie manure odours).
- Put a caveat on every agricultural property that is subdivided that it is subject to agricultural odours and keep caveat effective indefinitely.
- Control removal of trees and shelterbelts — local input on controls.
- Need "Right to Farm" Legislation.
- Need programming to control use of fragile lands.
- Curb land clearing.
- Too many non-farmers moving into countryside and impacting existing farm operations.
- Need "Right to farm" Legislation.
- Incentives for promoting building (subdivisions?) on marginal land — protect agricultural land from urban encroachment.
- Right to farm legislation.
- Control urban sprawl.
- Need "Right to Farm" Legislation.
- Wildlife groups should bear some of the costs of maintaining wetlands.
- Curb urban sprawl onto prime agricultural land.
- Incentive to maintain marginal lands in their natural state.
- "Right to Farm" legislation required.
- Prevent urban expansion onto good agricultural land.
- Restrict urban sprawl and subdivision of agricultural lands.
- Restrict development on highly productive agricultural lands around Winnipeg — redirect settlement to poorer lands.
- Would like subdivision regulations tightened — too many loopholes allowing agricultural land to be subdivided.
- Prevent stripping and selling of sod.
- Need to reserve high class agricultural lands for agriculture in perpetuity.
- Should aim urbanization at fragile lands.
- Leave fragile lands for grazing .
- Put some lands back into forests.
- Tax incentives may help landowners leave fragile lands out of production.
- Programs shall be developed to provide incentives for transition of fragile lands.
- Elicit payments equal to the agricultural productivity of fragile lands.
- Fragile lands should be bought by government.
- Incentives needed to convert fragile lands to alternate uses.
- Change assessment notices to show breakdown of how land is assessed (by land type).
- Should require a permit from local planning district to cultivate or clear marginal land.
- Use education to encourage landowners to leave fragile lands in their natural state.
- Reimburse farmers the cost of planting trees or protecting fragile soils.
- Some marginal lands returned to nature and existing marginal lands kept as natural habitat.
- Must be greater support to landholder to prevent loss of prime farmland to urban development (control land speculators).
- Right to farm legislation!
- Must eliminate all further subdivision of agricultural land.
- Develop local conservation groups.
- Land purchase of extremely fragile land.
- Some potholes should be filled again. Very poor land should be reforested. Some land in the Interlake should never have been cleared. Leave it in bush.
- Establishment of woodlots etc. with government encouragement and incentives.
- Government should buy out marginal farms — they encouraged them in the first place — and run them as Crown land with the job of maintaining nature so the rest of the land can be intensively used.

Draft Soil Policy 6 Conservation Education

Overview

Participants strongly agreed with the entire policy, and considered it perhaps the single most important policy of the strategy.

Conservation education was recognized as the most important activity we could undertake in this area. Information on the need for conservation should be made widely available. Schools could be used to a much greater extent to teach the fundamentals of conservation. Demonstrations of conservation practices at the farm level would help put those practices into effect.

OBJECTIVE

To enhance farmer and general public awareness of the need for soil conservation .

POLICY 6.1

Integrated conservation education programs shall be developed and promoted in cooperation with schools, and appropriate government and non-government agencies.

General Comments

- Visual awareness of soil erosion — show them the end result.
- Food prices should increase to help stop soil degradation.
- Farmers are being urged to produce as much as they can and that is the source of soil degradation.
- Will consumers realize the need for conservation to sustain food production?
- How will free trade affect the farmer if we subsidize soil and water conservation?
- Every acre to its best use — reforestation — more grassed areas.
- Need for more research — cutbacks in research work against policy objectives.
- Research should have farmers as an advisory group.
- Stress the farmers' costs of conservation and educate people to the cost and realities of farming.
- Drainage problems are generally attributed to large farms — the larger the farm the harder it is to manage properly.
- City people must be educated to the importance of agriculture.
- Education needed for farmers to conserve soil and non-farmers for the need of conservation and pay for such measures.
- All Natural Resource extension people are located in Winnipeg, yet all soil and resources are in rural areas. Ag Reps are too specialized to perform these duties and their responsibility is important.
- D.U. does a better job of conservation education than the province does in my opinion.
- Use education in the broadest term; tree planting, technology transfer, research, assistance.
- Services must be developed and made available.
- Conservation education is important — especially urban education — don't push too hard.
- Stress field trips and demonstration projects.
- Important policy — ensure a wide audience is targeted.
- Important to start education early — K-12 in school system.
- Important to use education in conjunction with incentives prior to legislation.
- Need to educate for future generations.
- Public awareness through advertising on TV or other media outlets.
- Educate present day farmers.
- Should be a high priority.
- Education should be in the school system at an early age — target future farmers.
- Educating the public is the most important objective.
- Education should be given a high priority.
- Probably should be #1 — research for proof, education for awareness, policy to achieve.
- "...and environmental concerns including the need for wildlife habitat".
- About time.
- We need more professional soil conservationists assisting with on-farm plans and education.
- Educate, Educate, Educate.
- How about some enforcement when education fails?

Specific Comments on the Policies

Objective

- Add to policy: "... need for and the advantages of soil conservation".
- Education is critical.
- Demonstration programs are a necessity.
- Money assistance is necessary.
- Cost of conservation should be spread out over all Manitobans.
- Other organizations involved in education — Trappers, campgrounds, parks etc.
- Education should be awareness.

Policy 6.1

- Change "shall be" to "must be"
- Long overdue.
- This should have been done 25 years ago!
- Where is the money going to come from?
- Conservation education in schools should be promoted through the Department of Education.
- Funding should come from Dept of Education — not Conservation Districts as now is the case.

"Perhaps the most important of all the policies stated"

Suggested Soil Policy 6

- Must focus on the urban population—mis-information and lack of info.
- Need to promote in schools -- "Ag-in-the-classroom", Fort Whyte, Non-government agencies.
- One on one communication.
- Need local input.
- Focus on young farmers -- they are the future.
- When and hurry up!
- Program delivery is the most critical and difficult — need something to react to.
- Work with farmer to develop conservation education.
- Develop a conservation program in the school curriculum — top priority.
- Add farmers.
- This should be done through schools, field trips, etc.
- Need demonstration projects.
- Education should have a higher priority in the policies.
- Demonstration projects.
- When will the program get into high gear?
- We should start educating as soon as possible.
- Most important policy.
- Involve local groups (fish and game assoc, etc) in the education process.
- Money and manpower are needed.
- Demonstration projects are an excellent education tool.
- Local recognition programs.
- Education very necessary.
- Local people should have input.
- Extremely important.
- Integrated with what?
- Change "Integrated conservation education programs shall be developed" to "Integrated conservation education programs should be developed".
- One of the main areas is it's surprising how ideas brought from school r*fect parental decisions.
- This is the most important step. As a farmer I have no knowledge of conservation practices and nowhere to turn.
- Programs should be put into the curriculum of schools through grades 1 - 12.
- City schools (Winnipeg, Brandon). Small town kids know about farming.
- Could be taught as an integrated history and geography course.
- Perhaps the most important of all the policies stated.
- Public input needed to develop the programs.

Programs and Initiatives That You Suggested ...

- Increase education through schools and environmental centres (Fort Whyte is good).
- Incentives are needed to promote conservation.
- Tax credits for conservation practices (retaining bushland, sloughs).
- Changes on assessment of marginal lands.
- Provide special conservation farming equipment for field trials.
- Education program needed — similar to US "Future Farmers of America" school program.
- Need demonstration projects.
- Need closer ties with city people — Exchange program between rural and urban people (adopt a family).
- Curtail drainage.
- Retire marginal land.
- Educate people to the benefits of chemicals use in agriculture.
- Education funds should be allocated for weed districts.
- Add more agricultural topics in the schools.
- Incentives to bring young farmers back to the farm — a whole generation is missing.
- Discourage corporate farming.
- Very important area — Conservation comes naturally from proper education.
- Work with farmer to develop conservation education.
- City people must be educated to the importance of agriculture.
- Demonstration projects showing conservation techniques in use.
- Educate city people to the importance of agriculture.
- Canadian Wildlife Federation program for schools should be introduced into the school system ASAP.
- Incentives to farmers to encourage proper conservation practices.
- Set up demonstration projects.
- Inspections and penalties to ensure that proper conservation techniques are being used.
- Tax breaks for planting shelterbelts — will lose them if they are removed from the land.
- Encourage soil testing to determine the health of the soil.
- Relationship between the farmer and PFRA should be enhanced.
- Province to work together with PFRA to promote and develop sound conservation practices.
- Grant system needs to be structured to ensure implementation of the policies.
- Require permits to clear, burn or otherwise alter the land.
- Watershed demonstration projects.

OBJECTIVE

To enhance farmer and general public awareness of the need and the advantages of soil conservation.

POLICY 6.1
SCHOOLS

Students of all ages shall be provided with information on the significance of Manitoba's soil resources.

POLICY 6.2
GENERAL PUBLIC

Education on soil matters shall be achieved in part through the sharing of information, demonstration projects and the involvement of the general public.

POLICY 6.3
FORUM FOR SCIENTIFIC AND TECHNICAL INPUT

Input from the scientific, technical, and professional communities on soil management issues shall be facilitated.

POLICY 6.4
COMMUNITY LEADERS AND ELECTED REPRESENTATIVES

Community leaders and elected representatives shall be provided with the information they need to make sound soil management decisions.

Northern Issues

Suggestions were made at many of the meetings and workshops and in some questionnaires that the policies had overlooked management of northern water resources, native interests, and hydroelectric energy development.

Participants felt that the north, with its sparse population and abundant natural resources, has unique conditions that call for special recognition appropriate to its needs. Northern basins contain some of the Province's most culturally and historically significant rivers. Once used for transportation and a source of food for native people, settlers, fur traders and explorers, waterways such as the Seal and Hayes rivers are of significant natural and cultural heritage importance that must be recognized in the policies.

The North

Northern Manitoba does not have the same issues as the south. There was concern that these differences be taken into account in applying the policies. We were told that in the past water resources in the north have been managed in an arbitrary fashion and that accountability for long-term environmental damage was not in place. Future water development in the north must receive as much attention as water development in southern Manitoba.

Water is of special value in the north. It is essential to waterfowl, fish and wildlife, transportation, and recreation, and therefore requires special attention.

Because of the unique relationship between residents of the north and the environment, a framework is needed within which northerners can participate in the planning and management of water resource projects.

Impacts of major interbasin diversions and transfers of water often cause unique problems requiring special attention. We were told that specific reference should be made to the devastating environmental, social, and economic effects on northern residents that could result from interbasin water transfers. The consensus was that because the environmental consequences of interbasin transfers cannot be accurately predicted, interbasin transfers of water should not be allowed.

Water is a sustaining force for the basic necessities of life for the native people of northern Manitoba. Throughout the meetings and workshops, native people stressed their traditional close relationships with nature and emphasized their determination to preserve their aboriginal claims to water.

We were also told that the water policies should stress the importance of the northern commercial and recreational fisheries to the local economy.

Some suggested that northern water resources planning should be integrated within a basin framework involving all northern resources. Participation by basin resource users and residents should be encouraged.

There was concern that water development on eastward flowing streams in Saskatchewan has often adversely affected flows in Manitoba, for example on the Saskatchewan River. The water policies should include a commitment to foster a cooperative approach with other jurisdictions to ensure that undesirable downstream impacts on Manitoba are recognized and mitigated as far as possible.

Northern Hydro Development

Large scale northern hydroelectric development projects often augment flows in one basin to the detriment of another and can adversely affect, perhaps irreversibly, the environmental and hydrologic regimes of both. This can also result in dramatic and damaging effects on the lifestyles and livelihoods of northern residents. It was suggested that a specific water policy should be included to control the impact of hydroelectric development and to ensure that potential adverse environmental and socio-economic effects can be mitigated to the fullest extent possible.

Examples of Specific Comments:

- Beaver and mink are drowned in traps when Hydro releases water without warning.
- I am especially impressed with the concept of giving local people input into decisions regarding policy. The opportunity to have local input into decisions regarding local use would indeed be a refreshing approach.
- Not only have there been significant negative impacts as a result of Hydro's activities on the Churchill, Rat, Burntwood and Nelson rivers and associated lakes but also the northern basins contain some of Manitoba's most aesthetic, cultural, historical, etc, water systems - Seal River, Hayes River.

Other Issues, Concerns and Suggestions

Many other issues were raised which did not deal with a specific policy, but are noted here.

Irrigation

Most of the comments on irrigation were critical of using water for irrigation in the midst of agricultural over-production. Many felt that irrigation should be the lowest priority or that it should not be undertaken. On the other hand we were told that irrigation should be a higher priority and that rights to the water should be assured. It was explained that small fruits and vegetables are dependent on irrigation and small acreages support many farm families. There is a significant investment in equipment and storage and some families have been irrigating for many generations.

Local Participation

At all of the rural and northern workshops we heard the desire for input into resource management decisions. There was concern that you in Winnipeg or you in the south should consult with the people in the area who know the situation first hand. Their suggestions were for direction and consultation, not dictation.

Basins & Watersheds

At all workshops and from questionnaires we heard the need for systematic planning and implementation on a watershed or basin basis. Whether it was to ensure that the basin or watershed was considered in decisions or to establish watershed or basin boards or committees, there was no opposition to the need to consider the entire watershed in flooding, drainage, water supply or water quality decisions. Many observations that conservation districts make their money go the furthest referred to the benefits of local involvement in planning and delivery.

International and Interprovincial Waters

Because Manitoba is at the receiving end of water originating in other provinces and states, we were told that more attention/coordination/monitoring must be directed at these other jurisdictions and it was pointed out that the policies did not address these issues.

"How will the policies address Federal jurisdiction and the Federal water policies?"

"Seventy percent of surface water comes from outside Manitoba but nowhere in this policy statement do I see any concerns regarding developments such as Garrison and the Southern Saskatchewan Dam project."

Hydro Development

The impacts of Hydro development, in particular on Southern Indian Lake, the Churchill River and Grand Rapids, were of great concern not only in the north but in Winnipeg and throughout Manitoba. There was concern that the policies did not address Hydro flooding. Some felt that before proceeding, the damages of the past must be addressed. There was also concern as to how to ensure that these types of impacts are not repeated in the future.

Big Dams

There was a significant concern across Manitoba over the impacts of big dams.

Climate Change

Climate change should have a strong place in the strategy. Although we do not know the magnitude of the impact of climatic change on temperature and precipitation patterns in particular areas, the warming trend is generally acknowledged to be fact by the scientific community.

List of Presenters, Letters and Submissions

Presenters

Gordon Orchard, Deerwood Soil & Water Management Association
Jake Schroeder, R. M. of Rhineland
Will Reimer, Carman
Frank Dyck, Morden Area
Sanso Vanzaglo, Elm Creek
Dr. Calverley, Carman
Jake Enns, Altona
Bill Roth, R. M. of Dufferin
Jack Wiebe, Winkler
Arnold Brown, Winkler
Scott Fraser, Winkler
Hans Warner, Winkler
Tony Riley, Strathclair
John Whittaker, Environment Committee, National Farmers Union
Joe Dolecki, Brandon University
Wayne Hildebrand, Whitemud Conservation District
Doug Collins, R. M. of Louise
Doug Cameron, Melita
Bill Poole, Turtle Mountain Conservation District
Doreen Moggey, Ninette
Dr. Hudson, Canadian Game Farming Association
Gord Hammel, Brandon Area
Art Wilkins, Pipestone Creek Area
Lloyd Hatch, Oak & Plum Lakes Management Board
Keith Robinson, Souris
Lorne Morrow, R. M. of Louise
Tom Beren, Assiniboine Delta Aquifer Protection Association, KAP
Sid Ransom, Boissevain
Arlene Robinson, Souris
Roy McLaren, Pembina River Area
E. W. Hilger, St. Norbert
Atish Maneere, Manitoba Environmental Council
Hugh Arklie, Dugald
Nick Vorseema, Winnipeg
Brian Panelle, Winnipeg
Brian Oborne, University of Winnipeg Students Acting for the Environment
Jerry Maryniuk, Manitoba Wildlife Federation
Taras Lasko, St. Adolphe
Boris Bachinski, Winnipeg
Heather Henderson, Winnipeg
Richard Snider, Deerwood Soil & Water Management Association
Rick Wishart, Ducks Unlimited
Linda McDonald, R. M. of West St. Paul
David Carrick, Fish Futures
Bob McClaverty, Thicket Portage
Doug Collicutt, Winnipeg
J. Duerkson, Winnipeg
Paul Larkin, Winnipeg
Al Schrupka, R. M. of St. Andrews
Albert Crawchuck, L.G.D. of Fisher
Stefan Stefanson, Gimli
Johann Johnson, R. M. of Gimli
Frank Baldwin, St. Andrews
Robert Christanson, Gimli
Eugene Chermeta, Gimli
Ed Peltz, R. M. of Woodlands
Bert Vandersteen, L.G.D. of Fisher
Michael Mitcheluk, Gimli
Leslie Jacobson, Keystone Agricultural Producers
John Kimantas, Interlake Spectator
Valerie Rutherford, R. M. of Richot - The International Coalition
Len Sawatsky, University of Manitoba Dept. of Geography
Kenneth Emberley, Winnipeg
Wayne Nealy, Winnipeg
Helen McCullough, Winnipeg
Les Schroeder, R. M. of Hanover
Nick Carter, Winnipeg
Marilyn Lada, Manitoba Naturalists Society
Ann Lindsay-Weiser, Concerned Citizens of Manitoba
Brian Gudmundson, Long Lake Cottage Owners Association
Hugh Fraser, Winnipeg
Don Crookshank, Deerwood Soil & Water Group
Wayne Cowan, Ducks Unlimited
Jake Enns, Buffalo Plains Soil & Water Management Group
Terrance Lasko, St. Adolphe
Don Bullock, Commercial Incineration & Distillation of Hazardous Waste
Jack Sprouts, St. Laurent Area
David Gislason, R. M. of Bifrost
Bob Hellman, Virden
Ian Wishart, Delta Agricultural Conservation Co-Op
Bob MacKenzie, Carman
Al Timmerman, Treherne
Lorne Henry, Portage la Prairie
Jim Stewart, Poplar Point
Fred Jenkins, Gladstone
Thor Thorleifson, Alonsa Conservation District
Myles Haverluck, Dauphin Opportunity Centre
Joe Robertson, Wildlife Advisory Board
Ted Romak, Cowan Soil & Water Conservation Co-Op, Manitoba Disaster Assistance Board
Greg Bruce, Turtle River Conservation District
Bob Grant, Ducks Unlimited
Dave Clayton, Dauphin
John Mascow, Parkland Regional Development Corporation
J. P. Bodnar, CESO, On Behalf of Northern Manitoba Commercial Fishermen
Bruce Unfried, Town of The Pas
Oscar Lathlin, The Pas Indian Band
Al Brass, Swampy Creek Tribal Council
Jim Lamontagne, L.G.D. of Consol

Clement Jones, Ducks Unlimited
Al Nelson, The Pas
Hubert Sinclair, The Pas
Bob Hysop, The Pas
Don Godwin, Norway House Community Council
Robert Wavey, Fox Lake Band, Gillam,
Manitoba Keewatinowi Okimakanak Inc.
John Ashton, INCO
Rodney Spence, Nelson House Band
Bob McClaverty, Thicket Portage
William Dysart, Fishermen's Association
Al Lovitz, Thompson
Ken McCabe, Trapper's Association
William Kozyra, R. M. of Brokenhead
Stan DeGroot, Beausejour
Bob Maciejkow, Cooks Creek Conservation District
John Friesen, Beausejour
Rick Howard, Conservation Strategy Association of Manitoba
Glenn Keilback, Beausejour
Bud Oliver, Town of Selkirk
Howard Smith, Cooks Creek Conservation District
Gordon O'Grodnik, Beausejour
Union of Manitoba Municipalities
Contact: Mr. Bill Roth
Manitoba Association of Urban Municipalities
Contact: Rochelle Zimberg
Manitoba Metis Federation
Contact: Billyjo de la Ronde, Executive Director
Assembly of Manitoba Chiefs
Contact: Shirley Olson
Women's Institute
Contact: Alice McLaren
Keystone Agricultural Producers
Contact: Earl Geddes
Indigenous Women's Collective
Contact: Joyce Courchene

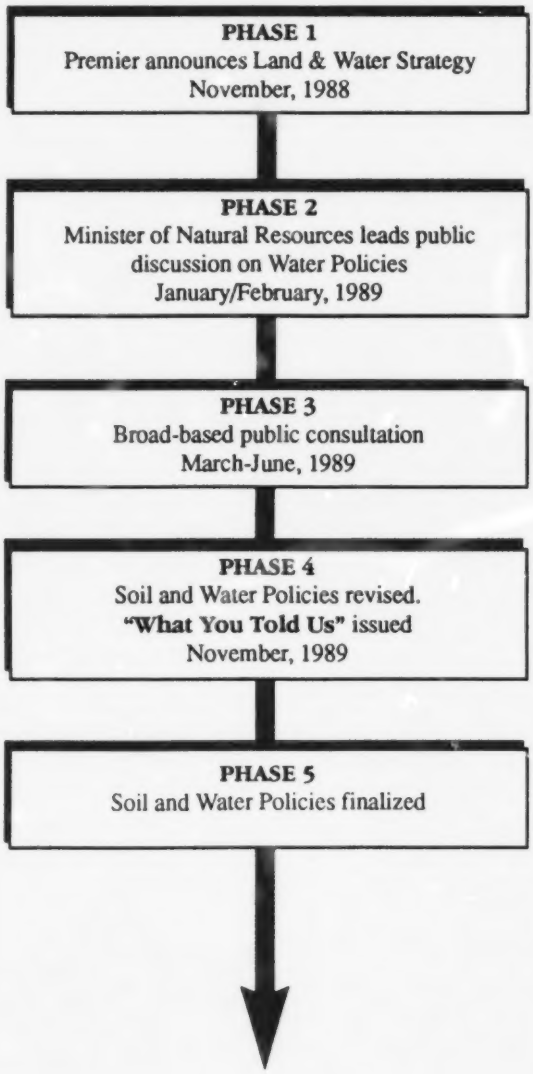
Letters

Mr. & Mrs. Lloyd Moore, Melita
Bradley Bird, Qpasquia Times
Stan Rainke, West Lake Water Association
Robin Hahn, Winnipeg
Dr. W.M. Graham, Lakehead University, Thunder Bay
Sid Ransom, Boissevain
Mr. & Mrs. John Hayball, Carberry
Prof. A.B. Sparling, Faculty of Engineering, University of Manitoba
Douglas Cameron, Melita
George Klassen, Winnipeg
Manitoba Environmental Council
Contact: Dr. Ian Rollo
Manitoba Keewatinowi Okimakanak Inc.
Contact: Chief Robert Wavey
Ducks Unlimited Canada
Contact: Wayne Cowan, Agricultural Extension Services
Swampy Cree Tribal Council
Contact: Philip Dorian, Executive Director
Alonsa Conservation District
Contact: Thor Thorleifson, Manage
Garrison Diversion Conservancy Office
Contact: C. Emerson Murry, Manager
Northern Association of Community Councils
Contact: Joseph Klyso, Community Relations Officer
Manitoba Forestry Association Inc.
Contact: Ivan J. Balenovic
Prairie Fruit Growers Association
Contact: Mr. R. N. Hicks
Assembly of Manitoba Chiefs
Contact: Chief Louis Stevenson
Souris River Water Commission
Contact: Ron Renwick
Fish Futures Inc.
Contact: David Carrick, President
Whitemud Watershed Conservation District
Contact: Wayne Hildebrand, Manager
Conservation Strategy Association of Manitoba
Oak Lake Cottage Owners Association
Contact: W.L. Stinson
Manitoba Habitat Heritage Corporation
Contact: D. McMaster, Chairman
The Sierra Club of Western Canada
Contact: Duncan Stewart, Chairman, Manitoba Group
Association of Irrigators in Manitoba
Contact: Doug Connery, Chairman

Special Meetings

Federal Department of Fisheries and Oceans
Contact: Dr. R.M. McMullen, Regional Director - Science
Association of Irrigators in Manitoba
Contact: Doug Connery, Chairman
P.F.R.A.
Contact: Erminio Caliguiri, Director of Manitoba Affairs
Canada Water Resources Branch
Contact: Bob Hale, Regional Chief
Manitoba Naturalists Society
Contact: George Holland
Manitoba Wildlife Federation
Contact: Bob Barton
Manitoba Environmental Network
Contact: John Barker
Canadian Society of Limnologists
Contact: Dr. Diane Malley
Keystone Agricultural Producers
Contact: Earl Geddes

What happens Next?



The policies continue to undergo revision based on your input.

If you have concerns or suggestions in the meantime, please call or write us at:

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